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Finances of Egyptian Listed Firms and the Performance of the Egyptian Stock Exchange

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Abstract

This paper analyzes the finances of Egypt's listed firms and the performance of the Egyptian stock exchange during the period 2003-07/08. Egyptian companies can be clearly divided into a top tier and a second tier. Egypt's top tier of listed firms tends to finance themselves mainly from operating cash flows, trade credits, and other short-term borrowing. This raises questions as to whether recent performance could have been even better had these firms done more in the way of long-term financing and long-term investment. This issue is even starker for a large second tier of much smaller firms. Regarding the stock market, the analysis finds that the Egyptian Exchange has experienced extraordinary market capitalization growth fueled by strong price increases. Market activity has been increasing as well, but reached expected levels only recently. Despite strong improvement, however, many companies remain illiquid. In its ability to raise capital, Egypt seems to do well, but privatizations and relatively low gross fixed capital formation might distort this picture.

This paper—a product of the Policy Development Unit, Financial and Private Sector Development Vice-Presidency—is part of a larger effort in the department to understand capital market development in Egypt. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at efeijen@worldbank.org.

Finances of Egyptian Listed Firms and the Performance of the Egyptian Stock Exchange

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1 Introduction

In recent years, Egypt has been showing impressive economic growth and even outperformed other emerging markets with 7.1 percent versus 3.7 percent. Similarly, as a result of economic growth, regulatory reform, and strong investor interest, the Egyptian stock market has seen a remarkable boom before the global financial crisis erupted.

The objective of this paper is to understand Egypt's impressive performance and identify further obstacles to growth. In doing so, Section 2 studies the performance and financial structure of Egyptian listed firms during 2003-07. We focus on four sectors in the real economy – consumer staples (food, beverages, personal and household products), cyclical industrial (basic resources, chemical, automotive, industrial goods and services), building materials and construction, and travel and leisure. We find that Egyptian firms can be clearly divided into a top tier and second tier. Therefore, the paper first focuses on benchmarking Top Tier firms with similar firms in other countries and moves second to a comparison of Top Tier versus Second Tier firms. Each exercise focuses on three main areas: (financial) performance, investment, and leverage.

We find a tendency by Egypt's top tier of listed firms to finance themselves mainly from operating cash flows, trade credits, and other short-term borrowing which raises questions as to whether recent performance could have been even better had these firms done more in the way of long-term financing and long-term investment. This issue is starker for large second tier of much-smaller firms. We also find some evidence that privatized enterprises have slightly poorer performance, but have higher leverage ratios. This finding points to potentially structural differences in access to finance and performance for former state-owned firms.

Section 3 compares the Egyptian stock market against other stock markets by focusing on three main areas during 2003-08: market size, market activity, and the ability to raise capital. We find that the Egyptian Exchange (EGX) has experienced extraordinary market capitalization growth and is well above expected levels, fueled by strong price increases. The concentration of market capitalization is in line with similar countries and has been improving consistently.

Market activity has been increasing and reached expected levels in 2006, but dropped in 2007. Turnover concentration has been improving consistently as well, despite a relatively unfavorable free float distribution, but had a setback in 2007/2008. The more stringent listing rules issued in 2002 induced a strong delisting trend that has put the number of listed firms at expected levels. Despite strong improvement however, many companies remain completely illiquid. We estimate that transaction costs have come down and compare favorably to other countries. Commissions appear to represent the largest transaction cost component.

In its ability to raise capital relative to capital formation, Egypt seems to do well, but privatizations and relatively low gross fixed capital formation might distort the picture. Regarding non-privatization public offering activity, SPO activity has been high as many closely held companies skip the IPO stage to do an SPO, but it comprises less than one percent of market capitalization. In addition, IPO activity has been both low and amounts to less than 0.5 percent of market capitalization.

Some policy implications arise from this paper. In particular, additional reforms to raise EGX liquidity are worth considering. As some EGX-listed firms are still basically inactive, it makes sense to conduct ensure that EGX's 2002 de-listing initiative is being effectively implemented and to consider additional measures to accelerate delisting of dormant or non-compliant securities. Given the importance of free float, EGX could consider raising the minimum public float for EGX-listed stocks to 15 percent or more. Lastly, short-selling preparations should be implemented.

2 Financial Performance of Egyptian Firms

There is a clear stratification among Egypt's firms in terms of financial performance and access to finance. A top tier of 31 firms shows strong performance during 2003-2007 relative to peers in other emerging markets. These firms have been able to sustain rapid sales growth, apparently through heavy reliance on short-term trade credits, some short-term debt, and operating cash flows (retained earnings). There has been some real decline in net fixed assets – presumably reflecting productivity gains, actual disinvestment, or some combination thereof. Additional reforms of Egypt's equity market and institutional investor base may encourage a sustainable rise in stock market valuations, with resulting benefits for capital formation and economic growth. A larger second tier of 234 much-smaller, publicly-listed companies shows somewhat slower growth and lower profitability. Their access to long-term financing seems notably more constrained, which diminishes their future prospects for capital investment and growth.

Using the Worldscope Fundamentals database from Thomson Reuters, we first compare 31 Top Tier Egyptian companies with 948 similar companies from the following peer group of 11 countries: Colombia, Chile, Hungary, Indonesia, Israel, Jordan, Mexico, Morocco, Pakistan, Philippines, and Turkey (Exhibit 2.1). Because Egypt is a lower-middle income (LMI) country, we also compare the Top Tier with firms in the other LMI countries: Colombia, Indonesia, Jordan, Morocco, and Philippines. Given the focus on firms in the real economy, Top Tier companies only partially overlap with the CASE 30 Index, Egypt's main stock market index (see Exhibit A.1). Using data from Egyptian data provider Coface, in the second part we compare 234 smaller Second Tier companies with the 31 Top Tier firms.

Exhibit 2.1 – Firm sample composition

Sector	**Peer group**	**Egypt**		**Total**
		Top tier	*Second tier*	
Construction and materials	178	8	48	234
Consumer staples	291	11	74	376
Industrial cyclical	409	9	81	499
Travel & leisure	70	3	31	104
Total	948	31	234	1,213

Note: Peer group consists of companies in Colombia, Chile, Hungary, Indonesia, Israel, Jordan, Mexico, Morocco, Pakistan, Philippines, and Turkey.

2.1 Egypt's Top Tier Firms vs. Global Peers

Egypt's 31 large firms have generally seen robust real growth. Median real annual sales growth for them was 9.8 percent for 2003-2007, versus 6 percent for the broad peer group and 3 percent for the narrower LMI peer group (Table A-2). It appears that Egypt's top-tier firms have relied much more on trade credits, short-term bank borrowing, and retained earnings to finance ongoing business.

While differences in industry composition could account for these disparities, a statistical analysis of all available firm information (including industry composition) generally confirms this pattern. Sales growth was especially strong in Egypt's travel and leisure (T&L) sector (29 percent annual growth), building materials and construction (BMC) (22 percent), and cyclical industrial (14 percent). Consumer staples, however, showed 5.4 percent annual real declines in sales.

Typically, a Top Tier Egyptian company is large: it is roughly 6-7 times larger in terms of total assets and sales than the other 203 Egyptian firms. The Top Tier company group has eight firms in the Construction and Materials, 11 in the Consumer Staples, nine in the Industrial Cyclical, and three in the Travel and Leisure sectors. Exhibit A.1 in the annex list the individual companies.

2.1.1 Performance: Consistently superior profitability across sectors, especially in Travel and Leisure, but with the exception of Consumer Staples

Top Tier firms outperform both peer groups on all indicators during 2003-07. For example, with 9.8 percent, median yearly real sales growth exceeds the peer group with 3.8 percentage points (pp), pointing to robust growth (Exhibit 2.2). Looking at other profitability indicators, we see that Egyptian firms also outperform the peer group top companies as reflected by the net operating margin (+8.7 pp), ROA (6.1 pp), and ROE (+14.4 pp). Unreported regression analysis indicates that this superior profitability is likely driven by lower total expenses, which is in part, but not fully explained by firm size (as low as 8-9 pp of sales, even after taking size into account).

Exhibit 2.2 shows that only companies in the Consumer Staples sector exhibited negative sales growth, with 8.4 pp lower than the peer group. The opposite is true for the Industrial Cyclical, Construction and Materials, and Travel and Leisure sectors. In particular, sales growth in the Travel and Leisure sector is much higher than the peer group by as much as 27 pp., showing that tourism remains very strong.

Exhibit 2.2 – Profitability indicators

Medians and means for 2003-07

	Real sales growth (%)	Op. profit margin (%)	ROA (%)	ROE (%)	Real asset growth (%)
Peer group (WS)					
Median	6.0	9.3	5.2	7.7	0.9
Mean	9.1	12.3	4.4	5.3	6.5
LMI countries, excl. Egypt (WS)					
Median	3.0	8.8	4.3	5.7	-4.2
Mean	5.6	12.6	3.9	4.3	0.2
Top Tier, Egypt (WS)					
Median	9.8	18.0	11.3	22.1	0.9
Mean	14.1	20.3	13.4	23.9	6.1

Source: Worldscope; World Bank staff analysis

Notes: Retained earnings to Equity from Coface also include Reserves. Whole peer group: Colombia, Chile, Hungary, Indonesia, Israel, Jordan, Mexico, Morocco, Pakistan, Philippines, and Turkey. LMI countries: Colombia, Indonesia, Jordan, Morocco, and Philippines.

The industry level analysis in Exhibit 2.3 echoes this finding and shows that across all sectors, all profitability measures have been enjoying healthy growth rates over the period 2003-07, relative to the peer group. Exhibit 2.3 also shows that although all sectors have much higher net profitability, it is especially high in the Travel and Leisure sector (+19.5 pp), although the margins have been shrinking fast with a CAGR of -11.9 percent. The consistently high ROA points to sustainable profitability which is not due to lower asset growth (Exhibit 2.1). The extremely high ROE further points to durable profitability, which for all sectors has been growing at a positive rate. Again, the Travel and Leisure sector exhibits superior profitability growth (CAGR 44.1 percent; Exhibit 2.3).

The above findings could just represent high variation within industries and over the years. In addition, they do not take into account that countries have different industry compositions. Therefore we perform median regression analysis that explicitly accounts for these factors and corrects for differences in countries' industries. In addition, this technique withstands noisy data, leading to more reliable results (see Box 1).

Exhibit 2.4 shows the median Egyptian firm had superior performance across the board compared to the median non-Egyptian firm in the LMI group, even after correcting for differences in industry composition between countries. For example, the median Egyptian firm enjoyed a 6.8 percent higher sales growth compared to the median LMI-firm. Moreover, Egypt's outperformance for all indicators is statistically significant. Differences are slightly lower compared to the peer group and although sales growth is higher in Egypt it is no longer statistically significant from the peer group. However, the difference in the profitability indicators is still statistically significant.

Exhibit 2.3 – Profitability Analysis by Industry

Medians by year and average median and compounded average growth rate of period 2003-2007

	Travel and leisure				Construction and materials			
	2003	**2007**	**Average**	**CAGR**	**2003**	**2007**	**Average**	**CAGR**
Operating profit margin, %								
Peer group	13.9	12.0	13.9	-2.9	13.8	14.4	16.1	0.8
Egypt - Top tier	53.0	28.1	33.4	-11.9	19.8	20.3	27.8	0.4
ROA, %								
Peer group	3.1	3.4	3.2	1.4	3.7	6.4	5.8	11.5
Egypt - Top tier	4.5	9.5	8.8	16.1	9.5	10.7	14.7	2.3
ROE, %								
Peer group	2.9	4.4	3.5	9.2	4.9	10.5	10.1	16.4
Egypt - Top tier	2.9	17.9	15.7	44.1	12.8	18.7	22.1	7.8
Yearly real sales growth, %								
Peer group	NA	NA	1.9	NA	NA	NA	10.7	NA
Egypt - Top tier	NA	NA	28.9	NA	NA	NA	21.8	NA

	Consumer staples				Industrial cyclical			
	2003	**2007**	**Average**	**CAGR**	**2003**	**2007**	**Average**	**CAGR**
Operating profit margin, %								
Peer group	7.8	8.8	8.4	2.5	7.5	7.9	8.1	0.9
Egypt - Top tier	9.1	4.0	5.8	-15.2	19.1	12.4	17.8	-8.3
ROA, %								
Peer group	5.6	6.3	5.4	2.2	4.5	5.7	5.3	5.1
Egypt - Top tier	9.9	10.2	9.8	0.7	10.3	16.7	13.3	10.2
ROE, %								
Peer group	7.0	10.1	7.6	7.6	5.4	9.6	8.0	11.9
Egypt - Top tier	18.4	24.8	21.0	6.1	19.8	24.8	23.3	4.6
Yearly real sales growth, %								
Peer group	NA	NA	3.0	NA	NA	NA	8.8	NA
Egypt - Top tier	NA	NA	-5.4	NA	NA	NA	14.0	NA

Source: Worldscope; World Bank staff analysis

Box 1 – Median regressions: A robust technique to statistically assess country differences

In the median regression models, we analyze all available firm information from all countries. The purpose is to estimate whether there are significant differences between Egyptian firms and firms in the benchmark group. In doing so, we estimate the coefficient of an indicator variable that takes on the value 1 if the firm is Egyptian and 0 otherwise. The estimated coefficient on the indicator variable represents the difference between the typical Egyptian firm versus the typical non-Egyptian firm. This value is the reported value. To account for differences in industry composition for each country we add industry-fixed effects to the model.

We use median regressions (a particular type of quantile regressions) because balance sheet and profit and loss data are noisy. Thus averages are misleading and medians are a better central tendency indicator. Therefore we don't use Ordinary Least Squares (OLS). The interpretation of the coefficients is similar, except the result of a median regression represents the expected value for a median firm, instead of the average firm as in OLS.

Exhibit 2.4 – Statistical differences between the median Egyptian firm and the median benchmark group firm

Quantile regressions for period 2003-2007

	Median difference with LMI countries, (pp)		**Median difference with peer group, (pp)**	
	Difference	*Statistically different?*	*Difference*	*Statistically different?*
Real sales growth, %	6.8	Yes	3.4	No
Op. profit margin, %	8.4	Yes	7.5	Yes
ROA, %	6.9	Yes	6.3	Yes
ROE, %	15.8	Yes	14.6	Yes
Real asset growth, %	5.2	Yes	-0.9	No

Source: Worldscope; World Bank staff analysis

Note: Differences are expressed in percentage points. Statistically different refers to a p-value less than 0.1.

2.1.2 Investment: Higher profits are not always reinvested, with Consumer Staples disinvesting and Travel and Leisure fixed assets growing strong

Firms reinvest their profits and raise new money because of asset depreciation and to anticipate growth opportunities. Indeed, despite superior profitability, with a median of 17.3 percent, retained earnings to equity of Egyptian firms are similar to the peer group (Exhibit 2.5). However, Egyptian net fixed asset growth is not clearly higher than the peer group. Together with superior price to book ratios, this suggests a mixed picture on the sector level.

Exhibit 2.5 – Investment indicators

Medians and means for 2003-07

	Net fixed asset growth (%)	Price to Book	Retained earnings to equity (%)
Peer group (WS)			
Median	-3.9	1.3	17.7
Mean	1.2	1.7	18.4
LMI countries, excl. Egypt (WS)			
Median	-8.6	1.1	19.3
Mean	-5.8	1.5	20.7
Top Tier, Egypt (WS)			
Median	-5.3	1.8	17.3
Mean	3.2	2.3	18.5

Source: Worldscope; World Bank staff analysis

Notes: Whole peer group: Colombia, Chile, Hungary, Indonesia, Israel, Jordan, Mexico, Morocco, Pakistan, Philippines, and Turkey. LMI countries: Colombia, Indonesia, Jordan, Morocco, and Philippines.

There are indeed differences on the industry level. Consistent with its lower profitability, Consumer Staples shows significantly lower retained earnings in 2007 (-20.9 pp; Exhibit 2.6). In addition, its fixed asset growth in 2007 is much lower than the peer group (-2.9 pp). Not coincidentally, the price book ratio is only lower for Consumer Staples. In contrast, with higher fixed asset growth and lower retained earnings, the Travel and Leisure sector seems to be reinvesting its profits significantly, consistent with its superior price to book ratio (+5.9 pp). Although fixed asset growth rates of the Industrial Cyclical and Construction and Materials sectors are slightly higher, with significantly higher retained earnings, they seem to be hoarding their profits.

Exhibit 2.7 shows the statistical differences of indicators between Egypt and the benchmark groups where we have corrected for differences in industry composition. Relative to the LMI group, Egypt has superior net fixed asset growth of 2.9 pp, indicating that the typical Egyptian firm invests more than is expected based on its income bracket. However, comparing to the peer group, the difference is negative and not statistically significant likely due to industry variation. The slightly lower retained earnings in combination with robust high profitability suggest that the median Egyptian firm is reinvesting its earnings. However, the significantly higher Egyptian price to book ratio implies that investment is relatively on the low side.

Exhibit 2.6 – Investment indicators by industry, 2007
Medians

	Travel and Leisure	Construction and Materials	Consumer Staples	Industrial Cyclical
Yearly net fixed asset growth, %				
Peer group	-3.6	-4.6	-3.4	-4.5
Egypt - Top tier	12.5	-2.7	-6.3	-3.2
Retained earnings to Equity, %				
Peer group	19.6	17.2	23.0	14.7
Egypt - Top tier	1.2	28.4	2.1	22.2
Price to book ratio				
Peer group	1.6	1.7	1.5	1.6
Egypt - Top tier	6.5	1.9	1.2	3.5

Source: Worldscope; World Bank staff analysis

Exhibit 2.7 – Statistical differences between the median Egyptian firm and the median benchmark group firm
Quantile regressions for period 2003-2007

	Median difference with LMI countries, (pp)		Median difference with peer group, (pp)	
	Difference	*Statistically different?*	*Difference*	*Statistically different?*
Net fixed asset growth, %	2.9	Yes	-1.7	No
Price/Book Value Ratio	0.8	Yes	0.5	Yes
Retained Earnings to Equity, %	-3.2	No	-0.4	No

Note: Differences are expressed in percentage points. Statistically different refers to a p-value less than 0.1.

2.1.3 Leverage: Higher debt levels with an emphasis on short term liabilities and a reliance on trade credit

Firms can finance their activities in several ways. The research literature suggests that companies can raise money easier in more developed markets. In that respect, Egyptian firms are doing particularly well. Exhibit 2.8 shows that relative to both the LMI group and the peer group, they exhibit significantly higher debt to equity levels (+9.5 pp). In addition, a superior total liabilities to equity level (+31.3 pp) further indicates Egyptian firms use either more trade credit and/or obtain funds from other creditors. To finance their activities Egyptian firms seem to rely much more on short term liabilities (+ 9 pp), which confirms that trade finance is important. Lastly, relative to the peer group, because of the high profitability, Egyptian firms are in a good position to take on more debt, as evidenced by a higher interest coverage ratio.

On the sector level, we observe higher debt to equity ratios for all sectors except for Consumer Staples which has also been deleveraging with 8.6 percent per year (Exhibit 2.9). Deleveraging has also been taking place in Industrial Cyclical, but it still carries more total debt. The importance of trade finance for all sectors is again confirmed by higher total liabilities to equity level across the board. Higher short term debt levels for all sectors (except Consumer Staples) points to the relative importance of shorter maturities in Egypt. Interestingly, Industrial Cyclical seem to have been substituting long term debt for short term debt, whereas Travel and Leisure is reducing both short term and long term liabilities, likely driven by its extreme profitability.

Exhibit 2.8 – Leverage indicators

	Current to Total Liabilities, (%)	Total debt to Equity, (%)	Total liabilities to Equity, (%)	EBIT / Total Interest Expense Ratio
Whole peer group (WS)				
Median	69.6	22.2	58.5	3.0
Mean	65.1	36.4	64.7	279.4
LMI countries, excl. Egypt (WS)				
Median	69.6	19.9	55.3	2.4
Mean	64.4	35.6	58.8	458.8
Top Tier, Egypt (WS)				
Median	78.6	31.7	89.8	5.3
Mean	74.2	45.0	93.5	85.6

Source: Worldscope; World Bank staff analysis

Exhibit 2.10 shows statistical differences of indicators between Egypt and benchmark groups, adjusted for differences in industry composition of countries. Clearly, relative to the LMI group, the typical Egyptian firm has a 11.8 pp higher debt to equity ratio. It is still 7.3 pp higher compared to the peer group, but no longer statistically significant. The even higher total liabilities level, combined with a statistical significantly higher short term debt level, support the earlier finding of emphasis on short term maturities. Moreover, the significantly higher current liabilities level implies a strong reliance on trade finance.

Exhibit 2.9 – Leverage analysis by industry

Medians by year and average median and compounded average growth rate of period 2003-2007

	Travel and leisure				Construction and materials			
	2003	2007	Average	CAGR	2003	2007	Average	CAGR
Current liabilities to total liabilities, %								
Peer group	50.9	55.8	53.5	1.9	57.8	53.2	59.4	-1.7
Egypt - Top tier	61.0	61.9	66.9	0.3	53.6	66.7	58.9	4.5
Total debt to Equity, %								
Peer group	24.1	17.2	16.6	-6.6	14.3	27.5	21.5	14.0
Egypt - Top tier	74.5	44.3	59.1	-9.9	52.2	61.8	46.4	3.5
Total liabilities to Equity, %								
Peer group	45.6	53.6	46.9	3.3	44.9	55.9	52.7	4.5
Egypt - Top tier	106.0	86.8	109.5	-3.9	81.5	89.3	76.1	1.8
Short term liabilities to total liabilities, %								
Peer group	14.3	15.6	15.2	1.8	16.3	14.6	15.8	-2.1
Egypt - Top tier	18.4	24.3	19.7	5.7	20.1	30.9	19.5	9.0

	Consumer staples				Industrial cyclical			
	2003	2007	Average	CAGR	2003	2007	Average	CAGR
Current liabilities to total liabilities, %								
Peer group	71.7	69.0	70.1	-0.8	72.8	75.9	75.0	0.9
Egypt - Top tier	86.4	96.8	94.5	2.3	76.6	84.1	77.2	1.9
Total debt to Equity, %								
Peer group	29.9	30.4	30.7	0.3	18.7	19.3	18.8	0.6
Egypt - Top tier	32.4	20.7	21.0	-8.6	30.6	16.3	42.7	-11.8
Total liabilities to Equity, %								
Peer group	66.8	64.9	64.3	-0.6	58.1	57.0	59.5	-0.4
Egypt - Top tier	83.5	112.9	101.1	6.2	58.4	78.1	82.4	6.0
Short term liabilities to total liabilities, %								
Peer group	90.8	96.0	94.5	1.1	20.7	17.2	19.3	-3.6
Egypt - Top tier	58.4	60.0	61.0	0.5	22.2	50.6	32.3	17.9

Source: Worldscope; World Bank staff analysis

Exhibit 2.10 – Statistical differences between the median Egyptian firm and the median benchmark group firm

Quantile regressions for period 2003-2007

	Median difference with LMI countries, (pp)		Median difference with peer group, (pp)	
	Difference	*Statistically different?*	*Difference*	*Statistically different?*
Total debt to Equity, %	11.8	Yes	7.3	No
Total liabilities to Equity, %	29.8	Yes	30.3	Yes
Current to Total Liabilities, %	9.4	Yes	10.1	Yes
ST debt to total liabilities, %	3.1	No	4.0	Yes
EBIT / Total Interest Expense Ratio	2.9	Yes	2.2	Yes

Note: Differences are expressed in percentage points. Statistically different refers to a p-value less than 0.1.

2.2 Second Tier Firms vs. Top Tier Firms in Egypt

After benchmarking Egypt's Top Tier firms, we next contrast differences between Top and Second Tier firms.

2.2.1 Performance: Top Tier firms mostly outperform Second Tier firms, but Second Tier firms still likely outperform top companies in other LMI countries

Across all profitability indicators, Top Tier firms clearly show superior performance relative to Second Tier firms. Looking at medians, Exhibit 2.11 shows a lower real yearly sales growth of 3.6 pp, a lower operating profit margin of 5.1 pp, a lower ROA of 2.9 pp, and a lower ROE of 5.6 pp. Unreported regression analysis shows this results is driven by lower COGS and total expenses for Top Tier firms which can fully be explained by the fact that Top Tier firms are larger and hence enjoy significant scale economies (-7.0 pp and 1.5 pp, respectively).

In fact, Second Tier firms even seem to outperform top firms in countries with a similar level of economic development: the LMI group. However, the Worldscope and Coface are not completely comparable, which is likely due to errors and differences in definitions. The Coface database slightly underestimates the operating margin, ROA and ROE of Top Tier firms. Therefore, assuming that differences between databases of Top Tier companies translate to the other companies, Second Tier firms also outperform the LMI group. Because the Coface values are on average between 80 to 95 percent of the Worldscope data, it is very unlikely that the Second Tier outperforms the peer group with all countries.

Exhibit 2.11 – Profitability indicators

Medians and means for 2003-07

	Real sales growth (%)	Op. profit margin (%)	ROA (%)	ROE (%)	Real asset growth (%)
Second Tier					
Median	3.4	9.9	6.4	12.6	-1.3
Mean	7.5	17.2	8.0	15.1	3.6
Top Tier					
Median	7.0	15.0	9.3	19.2	0.0
Mean	13.8	18.9	10.1	19.9	5.0
Peer group (WS)					
Median	6.0	9.3	5.2	7.7	0.9
Mean	9.1	12.3	4.4	5.3	6.5
LMI countries, excl. Egypt (WS)					
Median	3.0	8.8	4.3	5.7	-4.2
Mean	5.6	12.6	3.9	4.3	0.2

Source: Coface Egypt;Worldscope; World Bank staff analysis

As regards industry differences, Exhibit 2.12 shows that in all sector performance indicators have been growing strongly over the period 2003-07, with the exception of the ROE and sales growth of Top Tier Consumer Staples firms, which confirms earlier findings. Both in Construction and Materials and industrial Cyclical, Top Tier firms outperform Second Tier firms unambiguously. However, in Travel and Leisure, Second Tier firms seem to outperform Top Tier firms in terms of margins and ROA. However, Top Tier firms have been showing superior growth rates, indicating that they are catching up rapidly.

After taking into account factors that can bias the results, we confirm that the median Top Tier firm shows significant outperformance. In doing so, we conduct a median regression analysis to assert that the findings not simply reflect sectors differences between Top and Second Tier firms or the economic cycle. The first two columns of Exhibit 2.12 nonetheless clearly show that Top Tier firms show superior results in terms of margins, ROA, and ROE. Top Tier firms outperform Second Tier firms by 4.9 pp, 3.7 pp, 5.3 pp, respectively. Still, there is no longer a significant difference in sales growth. These findings are very similar to the earlier simple median analysis. However, because Top Tier firms are 6 to 7 times larger, the last two columns of Exhibit 2.13 also take into account whether a company is small, medium, or large. However, even after this correction, Top Tier firms show higher profitability, implying that firm size does not fully account for the difference between the tiers.

Exhibit 2.12 – Profitability analysis by industry

Medians by year and average median and compounded average growth rate of period 2003-2007

	Travel and leisure, medians				Construction and materials, medians			
	2003	**2007**	**Average**	**CAGR**	**2003**	**2007**	**Average**	**CAGR**
Operating profit margin, %								
Egypt - Second tier (Coface)	40.4	47.6	44.0	3.3	8.9	13.5	10.2	8.7
Egypt - Top tier (Coface)	10.1	22.4	21.2	17.3	15.1	26.2	23.4	11.6
ROA, %								
Egypt - Second tier (Coface)	4.8	9.0	6.9	13.5	4.1	9.5	6.1	18.5
Egypt - Top tier (Coface)	1.4	7.0	5.2	39.0	6.3	14.4	11.6	17.9
ROE, %								
Egypt - Second tier (Coface)	7.1	14.6	10.4	15.6	10.6	24.2	16.2	18.0
Egypt - Top tier (Coface)	3.8	12.1	10.7	26.3	8.8	22.6	19.7	20.6
Yearly real sales growth, %								
Egypt - Second tier (Coface)	NA	10.3	8.1	NA	NA	2.9	5.3	NA
Egypt - Top tier (Coface)	NA	20.8	17.1	NA	NA	2.5	11.8	NA

	Consumer staples, medians				Industrial cyclical, medians			
	2003	**2007**	**Average**	**CAGR**	**2003**	**2007**	**Average**	**CAGR**
Operating profit margin, %								
Egypt - Second tier (Coface)	6.5	7.3	7.0	2.3	8.1	10.7	9.9	5.5
Egypt - Top tier (Coface)	5.0	6.8	6.2	6.4	18.3	22.2	19.5	3.9
ROA, %								
Egypt - Second tier (Coface)	5.6	6.2	5.7	1.9	5.1	8.9	7.0	11.6
Egypt - Top tier (Coface)	8.7	8.8	9.1	0.1	5.0	12.1	10.4	19.6
ROE, %								
Egypt - Second tier (Coface)	11.6	12.3	13.4	1.2	10.2	18.4	14.2	12.5
Egypt - Top tier (Coface)	21.6	16.7	20.1	-5.0	15.1	26.0	22.3	11.5
Yearly real sales growth, %								
Egypt - Second tier (Coface)	NA	-0.7	-0.9	NA	NA	6.9	6.2	NA
Egypt - Top tier (Coface)	NA	-3.6	-3.7	NA	NA	17.8	9.9	NA

Source: Coface Egypt; World Bank staff analysis

Exhibit 2.13 – Statistical differences between the median Top Tier firm and the median Second Tier firm

Quantile regressions for period 2003-2007

	Median difference, (pp)		**Median difference also taking firm size into account, (pp)**	
	Difference	*Statistically different?*	*Difference*	*Statistically different?*
Real sales growth, %	2.6	No	0.5	No
Op. profit margin, %	4.9	Yes	1.8	Yes
ROA, %	3.7	Yes	4.4	Yes
ROE, %	5.3	Yes	6.1	Yes
Real asset growth, %	1.0	No	-0.7	No

Source: Coface Egypt; World Bank staff analysis

Note: Differences are expressed in percentage points. Statistically different refers to a p-value less than 0.1.

2.2.2 Investment: All tiers show similar signs of disinvestment with much higher retained earnings levels for Top Tier firms

Exhibit 2.14 shows that both tiers experienced significant disinvestment—similar to the international benchmark results—which was even higher for Second Tier firms (median difference: -1.2 pp). Consistent with higher profitability, the Top Tier also shows higher retained earnings. However, international comparison is difficult since Coface information overstates fixed asset growth and retained earnings significantly, but the big differences both point to significant underinvestment and hoarding of earnings.

Exhibit 2.14 – Investment indicators

Medians and means for 2003-07

	Net fixed asset growth (%)	Retained earnings to equity (%)
Second Tier		
Median	-9.4	32.6
Mean	-3.4	34.1
Top Tier		
Median	-8.2	48.1
Mean	-2.2	43.1
Peer group (WS)		
Median	-3.9	17.7
Mean	1.2	18.4
LMI countries, excl. Egypt (WS)		
Median	-8.6	19.3
Mean	-5.8	20.7

Source: Coface Egypt;Worldscope; World Bank staff analysis

Notes: Retained earnings to Equity from Coface also include Reserves. Whole peer group: Colombia, Chile, Hungary, Indonesia, Israel, Jordan, Mexico, Morocco, Pakistan, Philippines, and Turkey. LMI countries: Colombia, Indonesia, Jordan, Morocco, and Philippines.

Regarding differences between industries, Exhibit 2.15 clearly shows that all tiers and industries have significant negative asset growth, with the exception of Top Tier Travel and Leisure companies, which has been growing rapidly as we found earlier. Exhibit 2.15 also shows that tiers in all sectors have been enjoying strong retained earnings growth, with Top Tiers having superior earning levels, up to more than 20 pp in the Construction and Materials and Industrial Cyclical sectors. Again, Top Tier Travel and Leisure shows strong growth with a CAGR of 49.3 percent.

Exhibit 2.15 – Investment analysis by industry

Medians by year and average median and compounded average growth rate of period 2003-2007

	Travel and leisure, medians				Construction and materials, medians			
	2003	2007	Average	CAGR	2003	2007	Average	CAGR
Yearly net fixed asset growth, %								
Egypt - Second tier (Coface)	NA	-9.6	-9.2	NA	NA	-7.0	-8.8	NA
Egypt - Top tier (Coface)	NA	17.4	14.9	NA	NA	-10.5	-10.6	NA
Retained earnings to Equity, %								
Egypt - Second tier (Coface)	18.3	31.2	28.0	11.2	42.3	46.0	38.4	1.7
Egypt - Top tier (Coface)	6.6	49.3	37.8	49.3	59.8	70.7	59.5	3.4

	Consumer staples, medians				Industrial cyclical, medians			
	2003	2007	Average	CAGR	2003	2007	Average	CAGR
Yearly net fixed asset growth, %								
Egypt - Second tier (Coface)	NA	-9.7	-9.0	NA	NA	-10.8	-10.4	NA
Egypt - Top tier (Coface)	NA	-3.7	-4.9	NA	NA	-8.6	-10.8	NA
Retained earnings to Equity, %								
Egypt - Second tier (Coface)	31.1	34.4	32.9	2.1	26.4	36.3	31.6	6.5
Egypt - Top tier (Coface)	37.1	50.9	41.0	6.5	37.1	63.7	50.4	11.4

Source: Coface Egypt; World Bank staff analysis

The fixed asset growth difference between tiers discussed earlier is 1.1 pp higher, even after taking into account sector characteristics, as Exhibit 2.16 shows. However, this difference is not statistically significant and decreases even further to a gap of 0.2 pp once the company size has been accounted for. The retained earnings gap however is real with 15.7 pp and cannot be

explained by sector nor size characteristics. Again, this finding points to significant underinvestment and hoarding of earnings by Top Tier firms.

Exhibit 2.16 – Statistical differences between the median Top Tier firm and the median Second Tier firm

Quantile regressions for period 2003-2007

	Median difference, (pp)		Median difference also taking firm size into account, (pp)	
	Difference	*Statistically different?*	*Difference*	*Statistically different?*
Net fixed asset growth, %	1.1	No	0.2	No
Retained Earnings to Equity, %	15.7	Yes	15.5	Yes

Source: Coface Egypt; World Bank staff analysis

Note: Differences are expressed in percentage points. Statistically different refers to a p-value less than 0.1.

2.2.3 Leverage: Deleveraging is taking place in all firms, although Top Tier firms have higher total debt levels; Second Tier firms have similar total debt as firms in the LMI group, but are more reliant on shorter maturities

Top Tier firms have both higher total debt and total liabilities levels than the Second Tier (14.7 pp and 24.4 pp, respectively), as Exhibit 2.16 shows. Second Tier firms also clearly have less access to long term finance as short term debt as a portion of total liabilities is 6.3 pp higher. The disproportionately higher level of current liabilities of Second Tier firms further suggests that Second Tier firms rely much more on trade credit, potentially a result from worse access to finance conditions. This suggestion is further supported by the fact that paid-in capital is much higher for the Second Tier (9.7 pp).

An international comparison is possible, since Coface and Worldscope leverage data are very close. Exhibit 2.17 shows that the Second Tier is leveraged in line with top firms in LMI countries, as evidenced by only a slightly higher debt level (0.5 pp). Total liabilities levels are with 63.5 percent both higher than the peer group and the LMI group. In combination with higher current liabilities and short term debt, this confirms that Second Tier firms rely relatively more on short term maturities and trade finance. The differences in profitability clearly reflect that the interest coverage ratio is higher in Egypt, despite debt levels also being higher.

As for industry differences, Top Tier firms have higher total debt levels in all sectors, except for Consumer Staples (Exhibit 2.18). In addition, all sectors have been showing strong deleveraging over the period 2003-07, with the exception of the Top Tier in Industrial Cyclical (CAGR 23.2 percent). This finding is further supported by the strong growth in interest coverage across the board. In addition, we observe an overall increase in current liabilities for all tiers. However, for all Second Tier firms, short term debt decreased, except for Construction and Materials, showing the increasing importance of different credit sources like trade finance. In contrast, short term debt increased for Top Tier firms, with the exception of Consumer Staples.

Exhibit 2.17 – Leverage indicators

Medians and means for 2003-07

	Current to Total Liabilities, (%)	Total debt to Equity, (%)	Total liabilities to Equity, (%)	EBIT / Total Interest Expense Ratio	Short term debt to tot. liabilities (%)	Paid in capital to total assets, (%)
Second Tier						
Median	86.1	19.4	63.5	3.3	25.4	34.3
Mean	76.0	35.2	73.5	381.6	29.1	36.7
Top Tier						
Median	78.4	34.1	87.9	3.9	19.1	24.6
Mean	74.1	43.6	94.3	59.1	24.0	26.8
Peer group (WS)						
Median	69.6	22.2	58.5	3.0	14.9	NA
Mean	65.1	36.4	64.7	279.4	21.4	NA
LMI countries, excl. Egypt (WS)						
Median	69.6	19.9	55.3	2.4	16.0	NA
Mean	64.4	35.6	58.8	458.8	23.9	NA

Source: Coface Egypt;Worldscope; World Bank staff analysis

Notes: Retained earnings to Equity from Coface also include Reserves. Whole peer group: Colombia, Chile, Hungary, Indonesia, Israel, Jordan, Mexico, Morocco, Pakistan, Philippines, and Turkey. LMI countries: Colombia, Indonesia, Jordan, Morocco, and Philippines.

Exhibit 2.18 – Leverage analysis by industry

Medians by year and average median and compounded average growth rate of period 2003-2007

	Travel and leisure, medians				Construction and materials, median			
	2003	2007	Average	CAGR	2003	2007	Average	CAGR
Current liabilities to total liabilities, %								
Egypt - Second tier (Coface)	49.1	79.0	58.7	10.0	75.2	88.2	84.3	3.2
Egypt - Top tier (Coface)	60.0	69.7	72.3	3.0	53.8	70.7	57.0	5.6
Total debt to Equity, %								
Egypt - Second tier (Coface)	4.2	4.1	6.0	-0.6	26.1	24.6	31.2	-1.2
Egypt - Top tier (Coface)	119.4	32.6	57.8	-22.9	53.1	29.5	44.0	-11.1
Total liabilities to Equity, %								
Egypt - Second tier (Coface)	19.2	26.9	29.8	6.9	87.6	65.7	84.8	-5.6
Egypt - Top tier (Coface)	181.9	72.2	111.2	-16.9	55.7	49.5	60.9	-2.3
EBIT to interest expenses								
Egypt - Second tier (Coface)	4.0	18.3	8.6	35.3	1.1	3.6	2.9	25.8
Egypt - Top tier (Coface)	0.6	8.1	3.0	69.8	2.2	8.2	4.5	30.8
Short term debt to tot. liabilities, %								
Egypt - Second tier (Coface)	9.6	8.8	8.6	-1.6	23.3	32.4	26.4	6.8
Egypt - Top tier (Coface)	26.1	0.1	7.9	-65.9	4.3	16.3	6.6	30.8

	Consumer staples, medians				Industrial cyclical, medians			
	2003	2007	Average	CAGR	2003	2007	Average	CAGR
Current liabilities to total liabilities, %								
Egypt - Second tier (Coface)	89.2	90.0	86.2	0.2	85.9	88.7	86.7	0.6
Egypt - Top tier (Coface)	89.3	91.9	94.4	0.6	37.1	75.6	60.8	15.3
Total debt to Equity, %								
Egypt - Second tier (Coface)	28.1	20.7	24.2	-6.0	21.1	19.8	18.0	-1.3
Egypt - Top tier (Coface)	28.9	16.2	22.9	-10.9	31.0	87.9	56.6	23.2
Total liabilities to Equity, %								
Egypt - Second tier (Coface)	58.4	60.0	61.0	0.5	65.4	65.9	66.4	0.2
Egypt - Top tier (Coface)	138.7	84.1	104.0	-9.5	75.1	150.5	101.8	14.9
EBIT to interest expenses								
Egypt - Second tier (Coface)	2.5	2.9	3.3	2.4	1.9	4.2	3.7	17.7
Egypt - Top tier (Coface)	3.1	3.8	4.2	4.6	1.3	4.3	3.3	26.9
Short term debt to tot. liabilities, %								
Egypt - Second tier (Coface)	66.8	64.9	64.3	-0.6	28.8	22.2	26.5	-5.1
Egypt - Top tier (Coface)	12.2	24.1	18.1	14.6	15.5	35.6	25.0	18.1

Source: Coface Egypt; World Bank staff analysis

Exhibit 2.19 shows that the difference in debt levels between the tiers is driven by size: after correcting for industry debt characteristics and the business cycle, the median Top Tier firms has over the period 2003-07 a 8.7 pp higher debt to equity level. However, after the size of firm is

taken into account, this gaps drops to -3.9 pp and is no longer statistically significant. This finding is supported by the fact that Top Tier firms have significantly lower paid-in capital, which can not be completely explained by their size. Similarly, Top Tier firms are much less reliant on short term debt because they are larger.

Exhibit 2.19 – Statistical differences between the median Top Tier firm and the median Second Tier firm

Quantile regressions for period 2003-2007

	Median difference, (pp)		Median difference also taking firm size into account, (pp)	
	Difference	*Statistically different?*	*Difference*	*Statistically different?*
Total debt to Equity, %	8.7	Yes	-3.9	No
Total liabilities to Equity, %	24.0	Yes	6.6	No
Current to Total Liabilities, %	-3.9	No	5.3	Yes
ST debt to Total Liabilities, %	-5.7	Yes	0.2	No
EBIT / Total Interest Expense Ratio	0.3	No	0.5	No
Paid-in capital to total assets, %	-11.5	Yes	-7.8	Yes

Source: Coface Egypt; World Bank staff analysis

Note: Differences are expressed in percentage points. Statistically different refers to a p-value less than 0.1.

2.2.4 Financing patterns: Reliance on trade credit, short-term credit, and retained earnings

Exhibit 2.20 suggests that top-tier firms rely much more on other creditors (i.e. trade credits), short-term bank borrowing, and retained earnings as sources of finance. Median growth of 9.6 percent in other creditors and 15.2 percent in retained earnings are high compared to similar firms in the peer groups. Top-tier firms also experienced a smaller contraction in short-term debt and a larger contraction in long-term debt during the period. Issuance of equity (i.e., paid-in capital) by Egypt's top-tier firms did not keep pace with inflation. Reliance on other creditors and short-term borrowing, may have led to higher financing costs.

Exhibit 2.20 shows that second-tier firms seem generally more constrained in terms of financing growth. Compared with the typical top-tier firm, the typical second-tier firm exhibited decreases in trade credits and lower growth in retained earnings during 2003-07. The relatively poor ability of raising external finance for second-tier firms will likely persist and impede future investment, and performance.

Exhibit 2.20: Growth rates of several financing sources

Medians	2004	2005	2006	2007	Average
Real yearly long term debt growth, %					
Peer group (WS)	-11.2	-11.0	-11.8		-11.3
Egypt - Second tier (Coface)	-21.3	-16.4	-16.1	-13.8	-16.9
Egypt - Top tier (WS)	-15.6	-19.2	-35.7		-23.5
LMI countries, excl. Egypt (WS)	-15.0	-20.6	-20.0		-18.5
Real yearly short term debt growth, %					
Peer group (WS)	-2.0	-5.9	-2.0		-3.3
Egypt - Second tier (Coface)	-5.1	-6.5	-1.1	-7.4	-5.0
Egypt - Top tier (WS)	-5.9	-4.2	3.4		-2.2
LMI countries, excl. Egypt (WS)	0.5	-6.6	-9.2		-5.1
Real yearly paid-in capital growth, %					
Peer group (WS)	-1.0	-5.6	-5.9		-4.1
Egypt - Second tier (Coface)	-9.8	-4.7	-7.2	-8.6	-7.6
Egypt - Top tier (WS)	-9.0	-3.0	-4.3		-5.4
LMI countries, excl. Egypt (WS)	-5.6	-8.7	-10.5		-8.3
Real yearly retained earnings growth, %					
Peer group (WS)	5.5	2.5	3.4		3.8
Egypt - Second tier (Coface)	1.9	9.8	6.4	7.9	6.5
Egypt - Top tier (WS)	-2.6	37.6	10.6		15.2
LMI countries, excl. Egypt (WS)	2.6	-3.6	-2.2		-1.1
Real yearly other creditors growth, %					
Peer group (WS)	7.8	3.4	2.8		4.6
Egypt - Second tier (Coface)	0.7	-2.7	-2.2	-2.2	-1.6
Egypt - Top tier (WS)	4.3	13.3	11.4		9.6
LMI countries, excl. Egypt (WS)	3.4	-0.2	-2.6		0.2

Note: Peer group consists of companies in Colombia, Chile, Hungary, Indonesia, Israel, Jordan, Mexico, Morocco, Pakistan, Philippines, and Turkey.
LMI countries are Colombia, Indonesia, Jordan, Morocco, and Philippines.

2.3 Performance of Privatized SOEs vs. Their Peers

Since June 1994, 52 SOEs have been privatized via public offerings in Egypt. Of these, 30 former SOE are in the real sector. We compared these companies with non-privatized companies to understand whether former SOEs have significantly different characteristics in terms of profitability and leverage. We find that former SOEs have somewhat poorer performance, but higher leverage. These findings could suggest a lack of competitiveness of former SOEs and potentially preferential access to external finance. Exhibit 2.21 shows that most of the former SOEs can be found in the consumer staples industry. The largest privatization wave occurred in 1996.

Exhibit 2.21: Composition former SOEs

By sector

Sector	Number
Construction and materials	6
Consumer staples	17
Industrial cyclical	7
Total	**30**

By year

Year of offering	Number
1994	2
1995	6
1996	13
1997	6
1998	3
Total	**30**

Source: Coface; World Bank staff analysis

Exhibit 2.22 compares simple medians and shows that ROE and ROA are similar for former SOEs and private companies. A standard test shows that the differences are not statistically different. In contrast, with 6 pp., real annual sales growth of former SOEs is significantly lower. In addition, there is some statistical evidence that the operating margin of former SOEs is more than 2 pp lower. Retained earnings and EBIT to interest expenses are slightly higher for former SOEs, but not significantly so. There does not seem to be a difference in the total debt to common equity level. However, looking at other leverage indicators, current to total liabilities and total liabilities to equity are significantly higher for former SOEs (6.2 pp and 29.7 pp, respectively). On the other hand, paid-in capital is significantly lower (6 pp). This result implies that former SOEs are better able to gain access to (trade) financing, potentially because they are perceived to be stable or can rely on some form of government support.

Exhibit 2.22: Profitability and leverage, 2003-07

Medians, by type of firm

Type of firm	Return on Equity, %	Return on Assets, %	Real annual sales growth, %	Operating profit margin, %
Private firms	14.7	7.9	7.4	11.4
Former SOEs	16.2	6.8	1.4	9.1

Type of firm	Retained earnings to equity, %	EBIT to interest expenses, x	Total debt to common equity, %	Current to total liabilities, %	Total liabilities to Equity, %	Paid-in to total capital, %
Private	33.5	4.4	27.7	84.1	74.5	36.1
Former SOE	37.0	6.0	27.1	90.3	104.2	30.1

Source: Coface; World Bank staff analysis

Since most privatizations occurred in the consumer staples industry, the comparison could be influenced by industry particulars. Moreover, former SOEs could structurally differ in terms of size, biasing the comparison further. Therefore, we again compare profitability and leverage indicators over the period 2003-07, taking into account differences in type of industry and total assets. The findings in Exhibit 2.23 roughly confirm the differences highlighted in Exhibit 2.22: real sales growth is lower and current liabilities are higher.

In a parallel exercise, we analyzed the time since the privatization and its power to explain the above-mentioned differences. We find that there is statistical evidence that the longer ago the

privatization took place, the bigger the sales growth and current liabilities gap currently is. This result implies that instead of becoming more similar to other private companies, former SOEs seem to have followed a different path after privatization.

Exhibit 2.23: Statistical differences between former SOEs vs. non-SOEs

Quantile regressions for period 2003-2007, corrected for firm size and industry

	Return on Equity, %	Return on Assets, %	Real annual sales growth, %	Operating profit margin, %
Difference vs. private	0.3	-1.0	-7.8	0.3
Statistical difference?	No	No	Yes	No

	Retained earnings to equity, %	EBIT to interest expenses, x	Total debt to common equity, %	Current to total liabilities, %	Total liabilities to Equity, %	Paid-in to total capital, %
Difference vs. private	-3.8	1.8	-9.2	11.1	11.0	-2.0
Statistical difference?	No	No	No	Yes	No	No

Source: Coface; World Bank staff analysis

Note: This table is the result of company-level median regression analyses of 234 Egyptian companies where differences in industry and company size are accounted for.

3 Performance of the Egyptian Exchange

Like other markets around the world, Egypt's stock market has suffered from the current financial crisis. In only five months, the CASE 30 Index fell more than 50 percent to below 4,000 points from its all-time high point of 11,936 on May 5th, 2008. The analysis however will focus on the period before the crisis.[2]

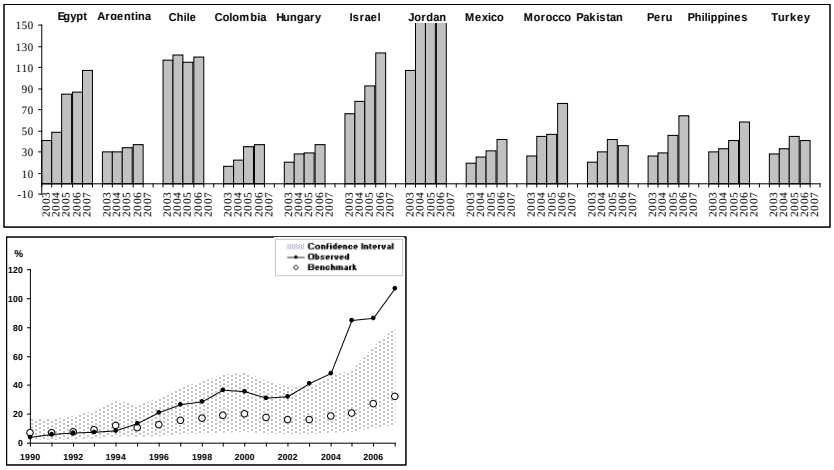
3.1 Market Capitalization

3.1.1 Market capitalization: Egypt experienced extraordinary market capitalization growth, fueled by strong price increases

As the CASE 30 Index exhibited exceptional growth since early 2002 until May 2008 (by a factor 24), so did stock market capitalization (albeit with a 2006 correction). Exhibit 3.1 shows that with an average yearly growth rate of around 27 percent, Egypt's capitalization as a fraction of GDP reached 107 percent in 2007, leaving other countries with similar income levels such as Philippines, Colombia, and Peru behind.

Exhibit 3.1 – Stock market capitalization

% of GDP for selected emerging markets, 2003-07 (left graph)
% of GDP for Egypt actual versus benchmarked values, 1990-2007 (right graph)



Source: EGX, S&P, World Federation of Exchanges, World Development Indicators; World Bank staff analysis
Note for right graph: Benchmarked values based on a worldwide regression model that takes into account GDP per capita, population size and density, value of fuel exports to GDP, the poverty gap, and whether the country is an offshore financial center. The confidence interval is plus and minus the standard error of the prediction.

Statistical analysis of worldwide data show there is a relationship between market capitalization, GDP per capita, population size and density, a country's status as a fuel producer, and whether the country is an offshore financial center. Indeed, Exhibit 3.1 shows benchmarking Egypt against these findings, market capitalization surged after 2002 well above expected levels. The main drivers of this stock market boom seem to be stock market regulatory reform, strong economic growth, and growing net portfolio equity inflows that reached $1.8 billion during the market's stellar performance of 2005, the year that Egypt joined the World Federation of

[2] To the extent that we analyze 2008 data, we included all available information up to and including June 20th.

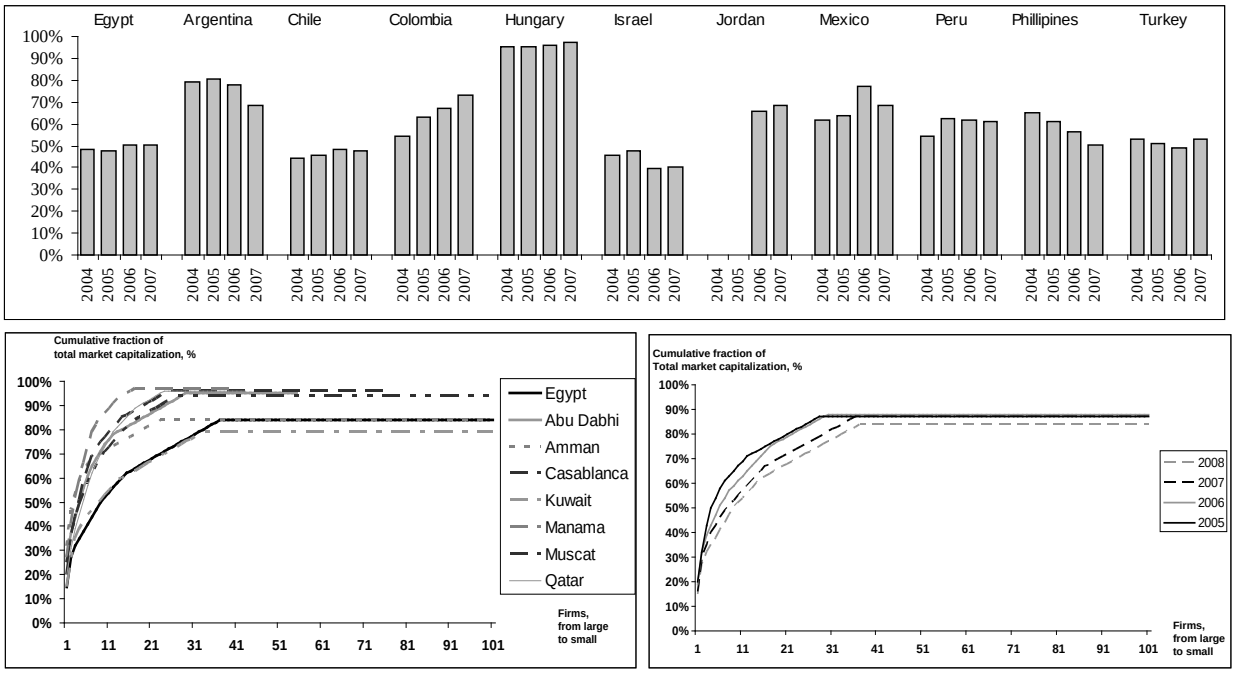
Exchanges. However, there is some evidence that from 2005 onwards, continued capitalization growth could be the result of some overvaluation.[3]

3.1.2 Market concentration: In line with similar countries and has been improving consistently

In 2007, market capitalization of the ten largest companies on the New York Stock Exchange was 19.3 of total capitalization. However, typically, in less developed markets this percentage is much higher. Exhibit 3.2 shows that the number in Egypt is roughly 50 percent, which is somewhat better than countries such as Argentina, Colombia, and Hungary and seems relatively stable over time. Next, we look in more detail at stocks covered in Bloomberg. Comparing the 2008 cumulative capitalization distribution of the 100 largest companies in Egypt with other markets[4], Egypt does well: 30-40 companies capture 80 percent of market capitalization. In contrast, in Manama, less than ten companies capture 80 percent of market capitalization. This is true for 10-20 companies in Abu Dhabi, Casablanca, Muscat, and Qatar. In addition, Egypt's distribution has been improving consistently. According to Bloomberg data, in 2005, the ten largest companies comprised 70 percent of capitalization which—similar to the WFE number of 45 percent—dropped to 50 percent in 2008.

Exhibit 3.2 – Concentration of market capitalization

Capitalization of top ten largest companies as % of total capitalization, 2004-07 (upper graph)
Capitalization of top 100 largest firms as % of total capitalization for selected countries, 2008 (left lower graph)
Capitalization of top 100 largest firms as % of total capitalization in Egypt, 2005-08 (right lower graph)



Source: World Federation of Exchanges, Bloomberg; World Bank staff analysis
Note for lower graphs: 2008 information is up to and including June 20th.

[3] Billmeier and Massa (2007). "Go long or short in pyramids? News from the Egyptian stock market." IMF working paper 179.
[4] Exhibit A1 in Annex 1 shows the MSCI investible indices for Egypt and the seven countries in the benchmark group. Exhibit A2 shows the number of firms simultaneously covered by Bloomberg.

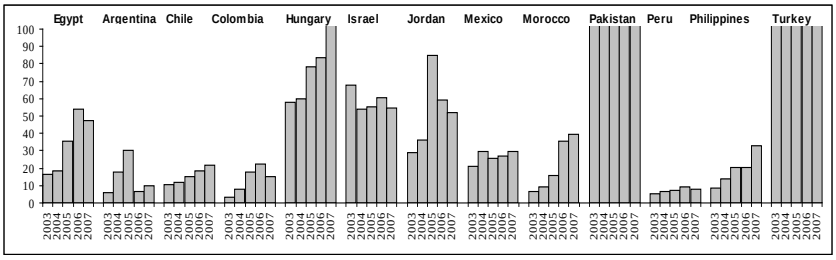
3.2 Market Activity

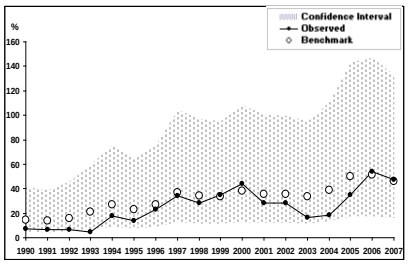
3.2.1 Aggregate trading activity: The turnover ratio and real value traded have been increasing and reached expected levels in 2006, but dropped in 2007

Like capitalization, value traded exhibited strong growth, resulting in a substantial increase of the stock market turnover ratio, which in 2007 stood at 47 percent, despite a decrease since 2006 (Exhibit 3.3). This places Egypt well ahead of some emerging countries such as Argentina, Chile, Colombia and Morocco. Egypt's turnover ratio seems to have been catching up since 2001 and in 2006 reached a level that is in line with expectations once country characteristics are accounted for. The 2006 drop seems to have affected both the most active and least active companies alike: the turnover ratio of the 50 most active companies as a percentage of their market capitalization was 45.5 percent in 2007. This is still higher than other lower-middle income countries, but slightly lower than Jordan's.

Exhibit 3.3 – Stock market turnover ratio and free float

% of GDP for selected countries, 2003-07 (upper left graph)
% of GDP for Egypt actual versus benchmarked values, 1990-07 (upper right graph)
Free float distribution for private firms reporting to EGX, latest available information (lower graph)





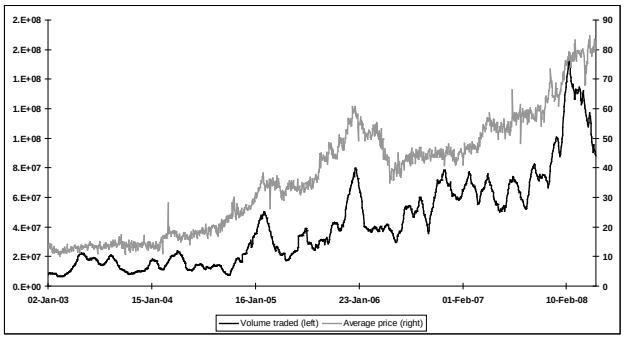
Free float, %	Number of firms	Percent of total
0 to 5	90	32.4%
6 to 10	37	13.3%
11 to 15	22	7.9%
16 to 20	20	7.2%
21 to 25	23	8.3%
26 to 30	12	4.3%
31 to 35	13	4.7%
36 to 40	9	3.2%
41 to 45	5	1.8%
46 to 50	8	2.9%
51 to 55	11	4.0%
56 to 60	3	1.1%
61 to 65	3	1.1%
66 to 70	6	2.2%
71 to 75	4	1.4%
76 to 80	3	1.1%
81 to 85	1	0.4%
86 to 90	2	0.7%
91 to 95	2	0.7%
96 to 100	4	1.4%
Total	**278**	**100%**

Source: EGX, S&P, World Federation of Exchanges, World Development Indicators, Coface; World Bank staff analysis
Note for upper right graph: Benchmarked values based on a worldwide regression model that takes into account GDP per capita, population size and density, value of fuel exports to GDP, the poverty gap, and whether the country is an offshore financial center. The confidence interval is plus and minus the standard error of the prediction. Note for lower graph: The graph displays the latest available data and ranges from 2005 to 2008, but is mostly from the period 2006-2008.

The free float is the fraction of shares that is available for trading to a broad audience. Exhibit 3.3 shows that the free float on EGX is limited. More than 30 percent of companies have a free float of less than 5 percent. More than 50 percent of companies have a free float of less than 15 percent. Only 5 percent of firms have a free float of 70 percent or higher. Low levels of free float adversely impact market activity and impede price discovery, while magnifying the market impact of a transaction and hence transaction costs, which further discourages trading. CMA however recently reduced the free float requirement for listed firms from 30 percent to 5 percent. It would be advisable to reconsider increasing this requirement and encourage listed firms to sell additional shares to the market.

Looking at all Egyptian firms reported in Bloomberg—about 200 stocks in 2008—real average value traded was 10.6 times larger in 2007 than in 2003 (Exhibit 3.4). Driven by growing stock prices, volume traded grew strongly as well during this period (correlation coefficient is 0.75), but the increase in 2004 was entirely due to price increases as the number of transactions stayed roughly constant. Volume traded has been falling since February 2008, probably mainly due to international financial deterioration and receding capital flows.

Exhibit 3.4 – Drivers of average real value traded
Prices and number of transactions are indexed to base year 2003, 2003-07 (left graph)
Daily volume traded and average prices in Egyptian Pounds, 2003-08 (right graph)



Source: Bloomberg; World Bank staff analysis

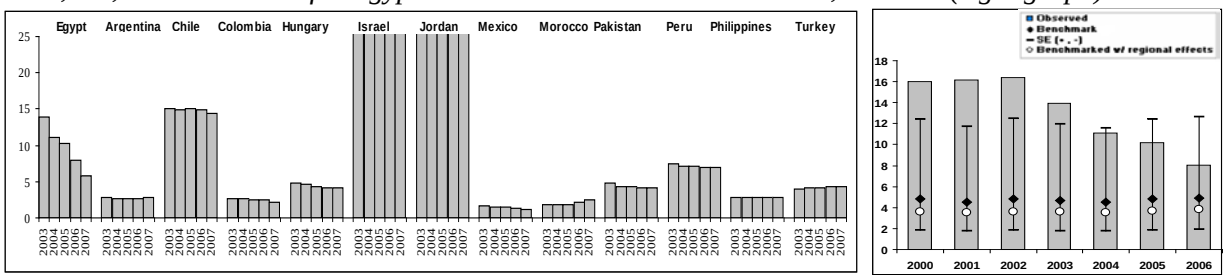
3.2.2 Net listing/delisting activity: Strong delisting trend brings number of listed firms back to expected levels

Despite overall healthy aggregate activity levels, many EGX stocks remain illiquid. To address this, the CMA tightened disclosure and trading requirements in 2002 which started a strong delisting trend. This trend has been further accentuated the removal of tax benefits of listing and M&A activity: almost two out of three companies have delisted since 2002. As a result, the ratio of traded to listed firms has improved from 59 percent in 2005 to its current level of over 75 percent. In 2008:H1, the number of listed firms came down to 375 from a 2002 peak of 1,151, making Egypt comparable to Peru in terms of the number of firms per 1,000,000 inhabitants, but it is still well ahead to Philippines, Morocco, and Pakistan (Exhibit 3.5). Hence, Egypt may have further scope for delistings. The 2006 level seems to be more in line—if slightly higher—with expectations when country characteristics are taken into account. In 2008, the number is 4.9, which is almost exactly as one would statistically expect.

Exhibit 3.5 – Number of listed firms

Per 1,000,000 inhabitants for selected countries, 2003-07 (left graph)

Per 1,000,000 inhabitants for Egypt actual versus benchmarked values, 2000-06 (right graph)



Source: EGX, World Federation of Exchanges, World Development Indicators; World Bank staff analysis

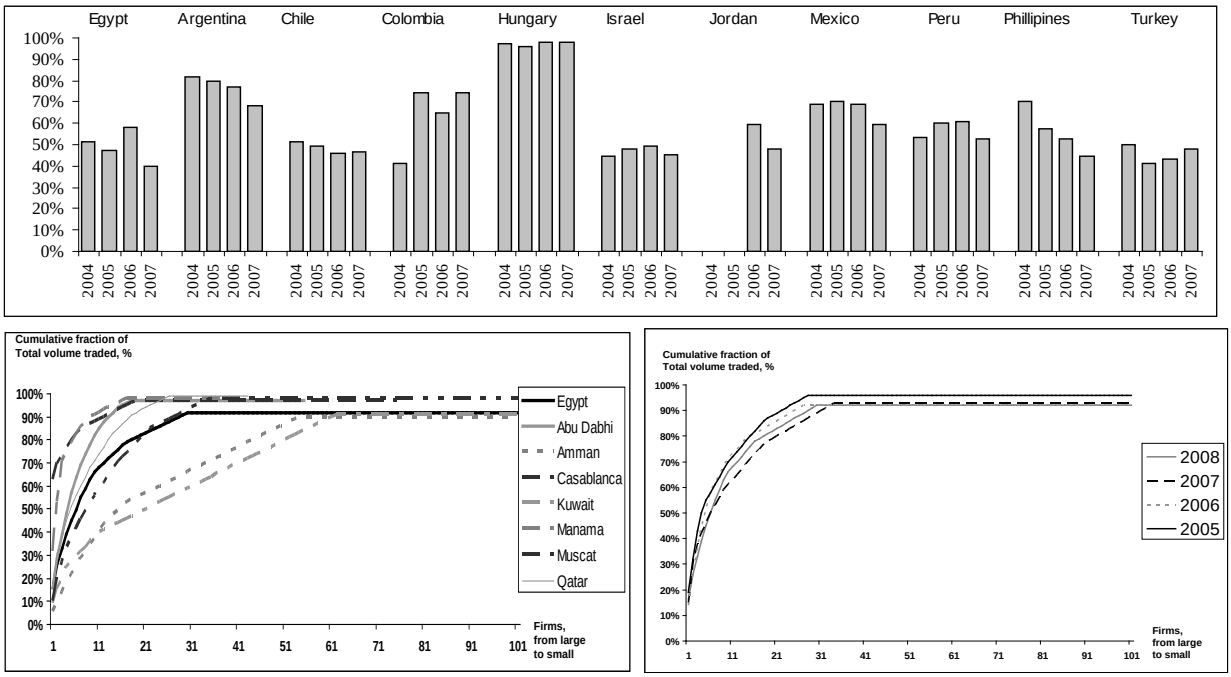
Note for right graph: Benchmarked values based on a worldwide regression model that takes into account GDP per capita, population size and density, value of fuel exports to GDP, the poverty gap, and whether the country is an offshore financial center. The confidence interval is plus and minus the standard error of the prediction.

3.2.3 Trading activity concentration: value and volume traded concentrations and number of stocks with a high fraction of non-zero trading days have been decreasing, but went up slightly in 2007-08; many stocks however remain illiquid

The top ten most active Egyptian companies are responsible for 45-50 percent of total value traded (Exhibit 3.6), which is in line with other lower-middle income countries. To filter out price effects, Exhibit 3.6 benchmarks Egypt's 2008 distribution of *volume* traded (as opposed to value traded) for the 100 most-active Bloomberg-covered stocks. Somewhat higher than reported by the WFE, in 2008 the top ten most active companies were responsible for 55-60 percent of total volume traded. This was only around 40 percent for Amman and Kuwait. Combined, Egypt's 30 most active companies accounted for 90 percent of volume traded. Casablanca and Manama were the most concentrated markets. Exhibit 3.6 shows that the distribution has improved over the period 2005-07 but has reversed slightly in 2008.

Exhibit 3.6 – Concentration of stock market activity

Turnover of top ten active companies as % of total turnover, 2004-07 (upper graph)
Volume traded of top 100 active firms as % of total firms for selected countries, 2008 (left lower graph)
Volume traded of top 100 active firms as % of total firms in Egypt, 2005-08 (right lower graph)



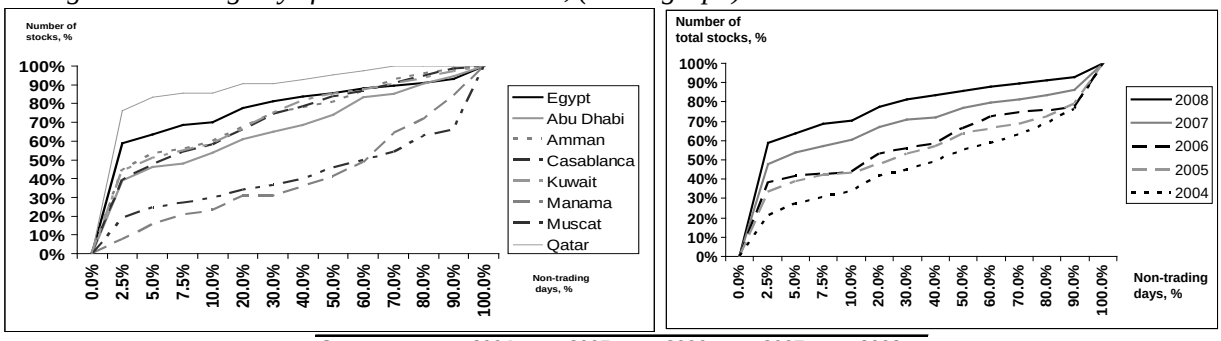
Source: World Federation of Exchanges, Bloomberg; World Bank staff analysis
Note for lower graphs: 2008 information is up to and including June 20th.

Stock liquidity in many emerging countries is low and non-trading days occur regularly. Therefore, the number of non-trading days is a transparent measure of liquidity. We benchmark 2008 information on the fraction of non-trading days to total trading days of 201 Egyptian stocks. On average, Egypt's fraction of non-trading days has been declining and is 11.8 percent in 2008 from 38.2 percent in 2004 (Exhibit 3.7). Clearly Qatar's 43 stocks show superior liquidity: almost 80 percent of the stocks have 2.5 percent or fewer non-trading days. In contrast, Muscat's and Manama's markets show the lowest activity. Egypt's 201 stocks (for which Bloomberg data is available) show good liquidity with almost 60 percent (118 stocks) of the most liquid stocks having 2.5 percent or fewer non-trading days.

Yet, Egypt's 20 percent least active stocks show low liquidity, comparable to Amman, Casablanca, and Kuwait. This might warrant additional delisting. In addition, Exhibit 3.7 shows that Egypt's liquidity position has been improving rapidly since 2004. The flattening tail of the distribution indicates that an increasingly smaller fraction of stocks are completely illiquid: according to Bloomberg, to date, 2008 only saw 14 completely illiquid stocks whereas this number was 36 in 2004.

Exhibit 3.7 – Trading activity for Bloomberg-covered stocks

Cumulative distribution of % of non-trading days for selected countries, 2008 (upper left graph)
Cumulative distribution of % of non-trading days in Egypt, 2004-08 (upper right graph)
Average non-trading days for selected countries, (lower graph)



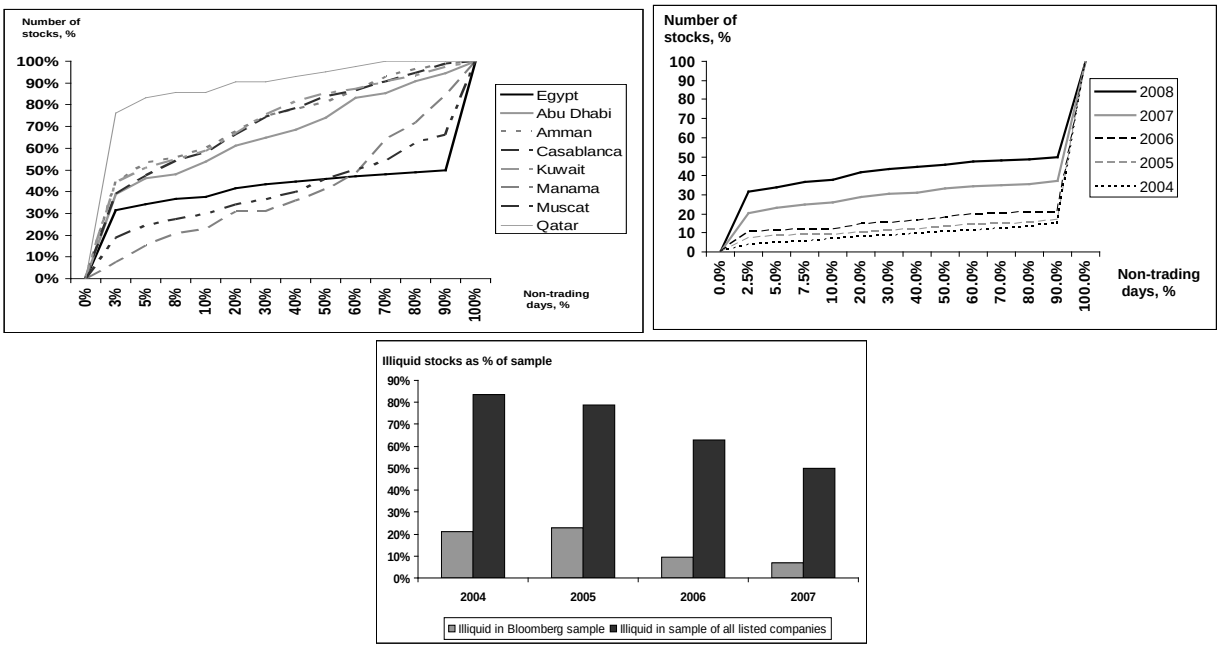
Country	2004	2005	2006	2007	2008
Abu Dabhi	NA	72.2%	31.1%	30.7%	25.4%
Amman	32.0%	24.0%	24.8%	21.8%	19.1%
Cairo	38.2%	31.6%	27.3%	16.1%	11.8%
Casablanca	42.3%	34.6%	28.1%	21.4%	18.2%
Kuwait	20.4%	19.8%	25.8%	21.8%	19.1%
Manama	67.6%	65.2%	65.0%	59.5%	50.0%
Muscat	59.5%	56.9%	59.6%	51.6%	45.4%
Qatar	11.9%	6.7%	4.9%	4.0%	6.4%

Source: Bloomberg; World Bank staff analysis
Note for all graphs: 2008 information is up to and including June 20th.

This analysis shows that the incidence of highly illiquid stocks has decreased from 30 percent in 2004 to 10 percent in 2008, implying that EGX is now one of the most liquid markets in MENA. However, this finding might be misleading, since Bloomberg covers only 201 stocks, while EGX reports the existence of 375 stocks as of mid-2008. Assuming that Egypt's stocks not reported in Bloomberg are highly illiquid, the fraction of illiquid firms would have instead decreased from 85 percent in 2004 to about 50 percent in 2008, making Egypt a poor regional performer (Exhibit 3.8). Regardless of this assumption, EGX liquidity has strongly improved since 2004, with the greatest advances being made in the most intense delisting periods—2005-06 and 2006-07.

Exhibit 3.8 – Trading activity including all Egyptian stocks

Cumulative distribution of % of non-trading days for selected countries, 2008 (upper left graph)
Cumulative distribution of % of non-trading days in Egypt, 2004-08 (upper right graph)
Fraction of illiquid stocks in Bloomberg sample and all listed firms, 2004-07



Source: EGX, Bloomberg; World Bank staff analysis
Notes: To construct the lower graph we assume that the stocks not covered by Bloomberg, are illiquid. This number is added to the number of illiquid stocks in Bloomberg and is taken as a fraction of the total number of listed firms reported by CASE.
Note for upper graphs: 2008 information is up to and including June 20th.

3.2.4 Transaction costs: Transaction costs have come down and compare favorably to other countries; commissions seem to represent the largest cost component

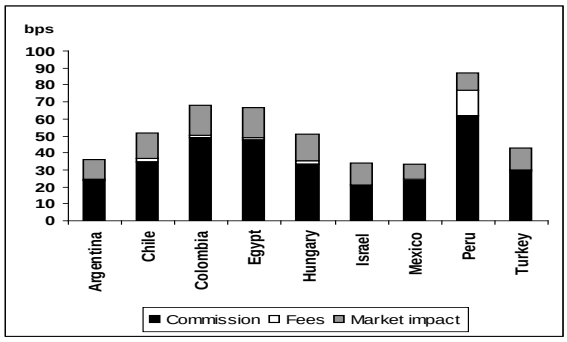
Market activity and liquidity crucially depend on the cost to execute a trade. The total transaction cost is typically thought to consist of three components: a broker commission, stamp or duty fees, and the market impact of the transaction, induced by the trade itself. If transaction costs are relatively high, prices will not fully reflect all available information since a trade will only take place if the value of the information outweighs the transaction cost.

In general, Egypt's transaction costs have come down and compare favorably to other countries (Exhibit 3.9). EGX-specific transaction costs have been reduced in 2007 from 0.125 per thousand of each side of the transaction's value to 0.12 per thousand (up to a maximum of LE5,000). However, during the second quarter of 2007, with almost 70 basis points, Egypt's transaction costs seem high relative to other countries. Indeed, according to EGX, the brokerage market has been relatively concentrated: the top five firms—most notably Commercial International Brokerage Company, Financial Brokerage Group, and Hermes Securities Brokerage—capture 40 percent of the market where currently more than 140 licensed companies are active. And competition seem to have deteriorated further: in the first quarter of 2008, the two largest brokers (Beltone Securities and Financial Brokerage Group) account for 49 percent of total value traded.

Egyptian bid-ask spread information is unfortunately not readily available to analyze patterns over time. It is however possible to estimate transaction costs based on the incidence of zero-return trading days, days on which no price movement was recorded. The assumption underlying this statistical model is that the marginal investor will not execute a trade unless the profit net of all transaction costs is positive. The model's estimates in Exhibit 3.9 suggest that transaction costs have come down in the whole benchmark group compared to 2005. In particular, Egypt's transaction costs have come down from over 130 basis points in 2005 to around 50 basis points for 2008 and could be the lowest in the region.

Exhibit 3.9 – Transaction costs

Transaction cost decomposition in 2007:Q2 for selected countries, basis points (left graph)
Round-trip transaction cost estimates for the 25 largest stocks in Egypt and Qatar, 2005-08 (right Exhibit)



Country	2005	2006	2007	2008
Abu Dabhi	8.79%	6.82%	4.22%	4.83%
Amman	1.95%	1.30%	1.23%	1.24%
Cairo	1.32%	0.74%	0.44%	0.52%
Casablanca	2.48%	1.98%	1.73%	1.23%
Kuwait	3.18%	5.02%	2.93%	2.73%
Muscat	5.43%	7.20%	5.31%	3.50%
Qatar	1.53%	0.87%	0.83%	0.99%

Source: Elkins & McSherry, Bloomberg; World Bank staff analysis
Note for right graph: 2008 information is up to and including June 20th. These numbers might not be directly comparable to the left graph. The econometric approach is a maximum likelihood, limited dependent variable model that uses daily stock returns to estimate transaction costs. Details can be found in Lesmond, Ogden, and Trzcinka (1999). "A new estimate of transaction costs". Review of Financial Studies 12:5.

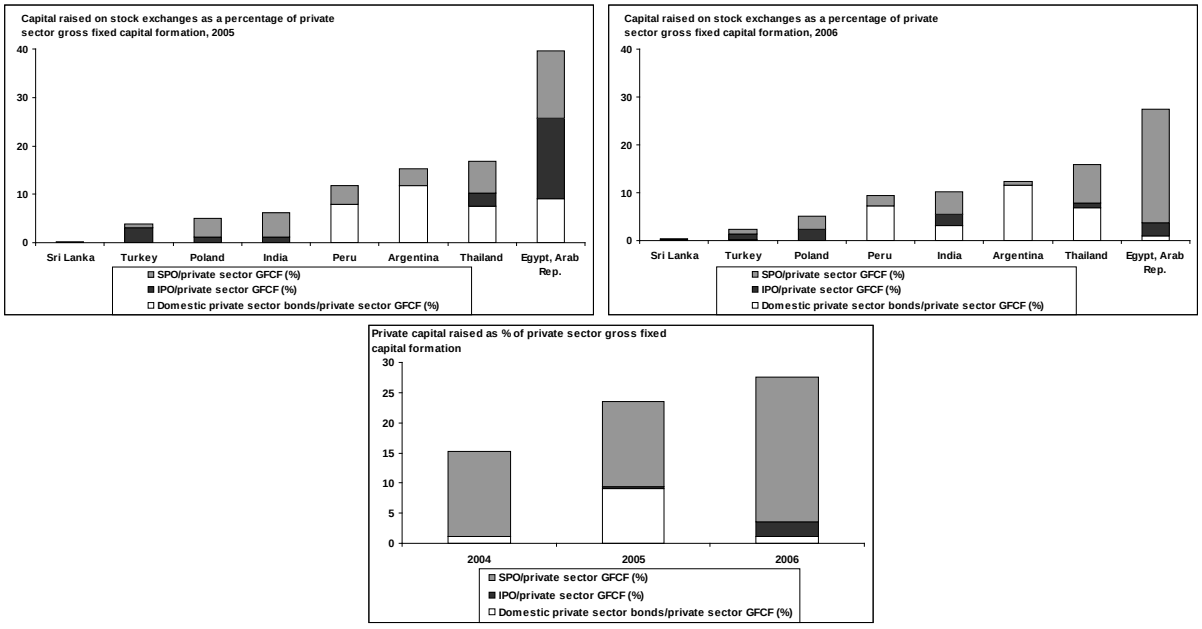
3.3 Capacity to Raise Capital

3.3.1 International comparison of capital raising activity: Overall, Egypt compares well, but privatizations and a relatively low gross fixed capital formation might distort the picture

Exhibit 3.10 shows that Egypt's exchange seems to have been fairly successful at raising capital, relative to gross fixed private capital formation (GFPCF): 40 percent versus almost 30 percent in 2006 and 2005, respectively. However these numbers need to be nuanced. First, the 2005 number is boosted by privatizations of Sidi Kerir Petrochemicals, Alexandria Mineral Oils Company, and Telecom Egypt. In that sense, 2006 gives a better picture, since there were no privatization-driven IPOs. Excluding, these large privatization IPOs, the Egyptian Exchange was only able to raise less than 25 percent of GFPCF in 2005. Secondly, SPO activity is the largest component (14.6 percent of GFPCF). Without SPOs, Egypt public offering activity would be lower than India's. Many Egyptian companies are closely held and therefore skip the IPO stage to do an SPO. Thirdly, Egypt's GFPCF as a fraction of GDP has been low and hence Exhibit 3.10 overstates the ability to raise capital. For example, Egyptian GFPCF to GDP has been consistently lower than Jordan, Mexico, Morocco, Pakistan and Philippines since 2002. Only in 2007, did Egypt surpass Philippines (13.7 percent)—currently the country with the lowest private capital formation—but it is still well below the group average of 18.7 percent. Were Egypt rise to the level of its peer group average in terms of capital market contributions to GFPCF, annual

issuances of corporate debt and equity would annually amount to about LE 200 billion (in FY09 terms) in new corporate bonds, IPOs, and SPOs.

Exhibit 3.10 – Raising capital on exchanges using IPOs, SPOs, and domestic private bonds
Total capital raised as a % of gross fixed private capital formation, 2005 (upper left graph)
Total capital raised as a % of gross fixed private capital formation, 2006 (upper right graph)
Private capital raised as a % of gross fixed private capital formation, 2004-06 (lower graph)



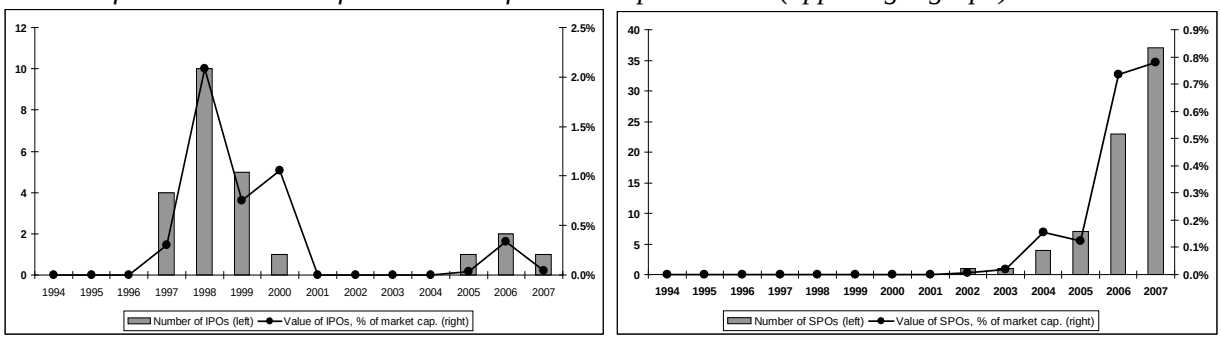
Source: EGX, World Federation of Exchanges, World Development Indicators; World Bank staff analysis

3.3.2 Non-privatization public offering activity: SPOs activity is high but not substantial; IPO activity is both low and not substantial

Having peaked at ten in 1998, non-privatization IPO activity has been low since, both in terms of numbers and relative to market capitalization (Exhibit 3.11). In fact, IPO activity was completely dormant during 2002-04. However, since 2005 there has been some activity, albeit most of it has been largely privately placed. For example, the 2005 IPO of Raya Holding for Technology and Communications was 100 percent privately placed. 2006 only had two IPOs in the form of El Swedy Cables and Al Arafa Investment and Consulting, with a private placement average of 93 percent. In addition, as a reaction to increasing share prices, Egypt also has been seeing an SPO increase: 2007 had 37 rights issues with a value of almost one percent of market capitalization.

Exhibit 3.11 – Non-privatization public offering activity

Number of IPOs and value of IPOs as % of market capitalization (upper left graph)
Number of SPOs and value of SPOs as % of market capitalization (upper right graph)



Source: EGX, World Federation of Exchanges, World Development Indicators; World Bank staff analysis

4 Annex

Exhibit A.1 – List of Top Tier companies

Name	Industry	CASE30
Alexandria Cement Company	Construction And Materials	
El Ezz Steel Rebars	Construction And Materials	X
Helwan Cement Company	Construction And Materials	
Lecico Egypt	Construction And Materials	
Misr Beni Suef Cement Company	Construction And Materials	
Sinai Cement Company	Construction And Materials	
Suez Cement Company	Construction And Materials	
Torah Portland Cement Company	Construction And Materials	
Al Arafa Investment & Consulting	Consumer Staples	
Alexandria Spinning & Weaving	Consumer Staples	X
East Delta Flour Mills	Consumer Staples	
Egypt International Pharmaceuticals	Consumer Staples	
El Nasr Clothing And Textile Company	Consumer Staples	X
General Silos And Storage	Consumer Staples	
Middle & West Delta Mills	Consumer Staples	
Middle Egypt Flour Mills	Consumer Staples	
North Cairo Flour Mills	Consumer Staples	
Oriental Weavers	Consumer Staples	
Upper Egypt Flour Mills	Consumer Staples	
Abuo Kir Fertilizers & Chemical Industries	Industrial Cyclical	
Egyptian Financial And Industrial Co.	Industrial Cyclical	X
El Ezz Aldekhela Steel Alexandria	Industrial Cyclical	
Elswedy Cables Holding Company	Industrial Cyclical	X
Gb Auto S.A.E	Industrial Cyclical	
Misr Chemical Industries Company	Industrial Cyclical	
Olympic Group Financial	Industrial Cyclical	
Orascom Construction Industries	Industrial Cyclical	X
Paints And Chemical Industries Company	Industrial Cyclical	
Egyptian For Tourism Resorts	Travel & Leisure	
Orascom Hotel Holdings	Travel & Leisure	
Orascom Hotels & Development	Travel & Leisure	

Exhibit A.2 – Selected indicators by industry

Outliers dropped	Travel and leisure, medians						
	2003	**2004**	**2005**	**2006**	**2007**	**Average**	**CAGR**
PROFITABILITY INDICATORS							
Operating profit margin, %							
Peer group (WS)	13.9	14.2	14.0	15.5	12.0	13.9	-2.9
Egypt - Universe (Coface)	31.5	39.5	44.2	38.8	47.4	40.3	8.5
Egypt - Second tier (Coface)	40.4	42.9	49.0	39.9	47.6	44.0	3.3
Egypt - Top tier (Coface)	10.1	28.1	26.8	18.6	22.4	21.2	17.3
Egypt - Top tier (WS)	53.0	31.2	28.5	26.0	28.1	33.4	-11.9
ROA, %							
Peer group (WS)	3.1	3.2	3.0	3.2	3.4	3.2	1.4
Egypt - Universe (Coface)	3.8	6.2	7.1	6.9	9.0	6.6	18.7
Egypt - Second tier (Coface)	4.8	6.5	7.1	7.4	9.0	6.9	13.5
Egypt - Top tier (Coface)	1.4	5.3	6.2	6.0	7.0	5.2	39.0
Egypt - Top tier (WS)	4.5	7.7	11.1	11.2	9.5	8.8	16.1
ROE, %							
Peer group (WS)	2.9	3.7	2.2	4.4	4.4	3.5	9.2
Egypt - Universe (Coface)	7.1	10.1	10.9	10.9	13.3	10.4	13.5
Egypt - Second tier (Coface)	7.1	10.0	10.3	9.9	14.6	10.4	15.6
Egypt - Top tier (Coface)	3.8	11.5	14.5	11.8	12.1	10.7	26.3
Egypt - Top tier (WS)	2.9	11.9	24.7	21.3	17.9	15.7	44.1
Price to Book ratio							
Peer group (WS)	1.1	1.1	1.3	1.3	1.6	1.3	9.2
Egypt - Universe (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Second tier (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Top tier (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Top tier (WS)	0.5	1.4	2.6	4.9	6.5	3.2	66.2
GROWTH RATES							
Yearly net fixed asset growth, %							
Peer group (WS)	NA	-3.4	-3.2	-4.3	NA	-3.6	NA
Egypt - Universe (Coface)	NA	-10.5	-5.7	-9.0	-8.3	-8.4	NA
Egypt - Second tier (Coface)	NA	-10.5	-6.8	-9.9	-9.6	-9.2	NA
Egypt - Top tier (Coface)	NA	17.1	9.0	16.3	17.4	14.9	NA
Egypt - Top tier (WS)	NA	-5.4	19.2	23.6	NA	12.5	NA
Yearly real total assets growth, %							
Peer group (WS)	NA	-0.6	-3.4	-1.5	NA	-1.8	NA
Egypt - Universe (Coface)	NA	-3.3	1.6	-2.5	0.3	-1.0	NA
Egypt - Second tier (Coface)	NA	-3.6	0.4	-2.9	-0.6	-1.7	NA
Egypt - Top tier (Coface)	NA	12.8	24.8	0.9	21.9	15.1	NA
Egypt - Top tier (WS)	NA	0.8	31.8	19.5	NA	17.4	NA
Yearly real sales growth, %							
Peer group (WS)	NA	5.2	3.1	-2.5	NA	1.9	NA
Egypt - Universe (Coface)	NA	16.4	3.0	3.1	11.9	8.6	NA
Egypt - Second tier (Coface)	NA	16.4	2.9	3.0	10.3	8.1	NA
Egypt - Top tier (Coface)	NA	35.4	3.1	9.0	20.8	17.1	NA
Egypt - Top tier (WS)	NA	48.3	21.6	16.9	NA	28.9	NA
LEVERAGE INDICATORS							
Current liabilities to total liabilities, %							
Peer group (WS)	50.9	54.7	53.9	52.0	55.8	53.5	1.9
Egypt - Universe (Coface)	49.1	61.6	58.1	66.0	78.3	62.6	9.8
Egypt - Second tier (Coface)	49.1	59.3	50.4	55.9	79.0	58.7	10.0
Egypt - Top tier (Coface)	60.0	76.3	73.5	82.1	69.7	72.3	3.0
Egypt - Top tier (WS)	61.0	59.6	69.9	82.1	61.9	66.9	0.3
Short term debt to tot. liabilities, %							
Peer group (WS)	14.3	17.2	15.7	12.9	15.6	15.2	1.8
Egypt - Universe (Coface)	9.6	8.5	4.3	8.0	8.8	7.9	-1.6
Egypt - Second tier (Coface)	9.6	8.5	9.1	6.8	8.8	8.6	-1.6
Egypt - Top tier (Coface)	26.1	1.3	0.9	11.3	0.1	7.9	-65.9
Egypt - Top tier (WS)	18.4	19.4	11.3	25.0	24.3	19.7	5.7
Total debt to Equity, %							
Peer group (WS)	24.1	18.1	11.3	12.3	17.2	16.6	-6.6
Egypt - Universe (Coface)	6.4	8.4	12.8	4.5	4.9	7.4	-5.4
Egypt - Second tier (Coface)	4.2	6.9	10.7	4.0	4.1	6.0	-0.6
Egypt - Top tier (Coface)	119.4	62.7	36.2	37.8	32.6	57.8	-22.9
Egypt - Top tier (WS)	74.5	63.8	70.2	42.8	44.3	59.1	-9.9

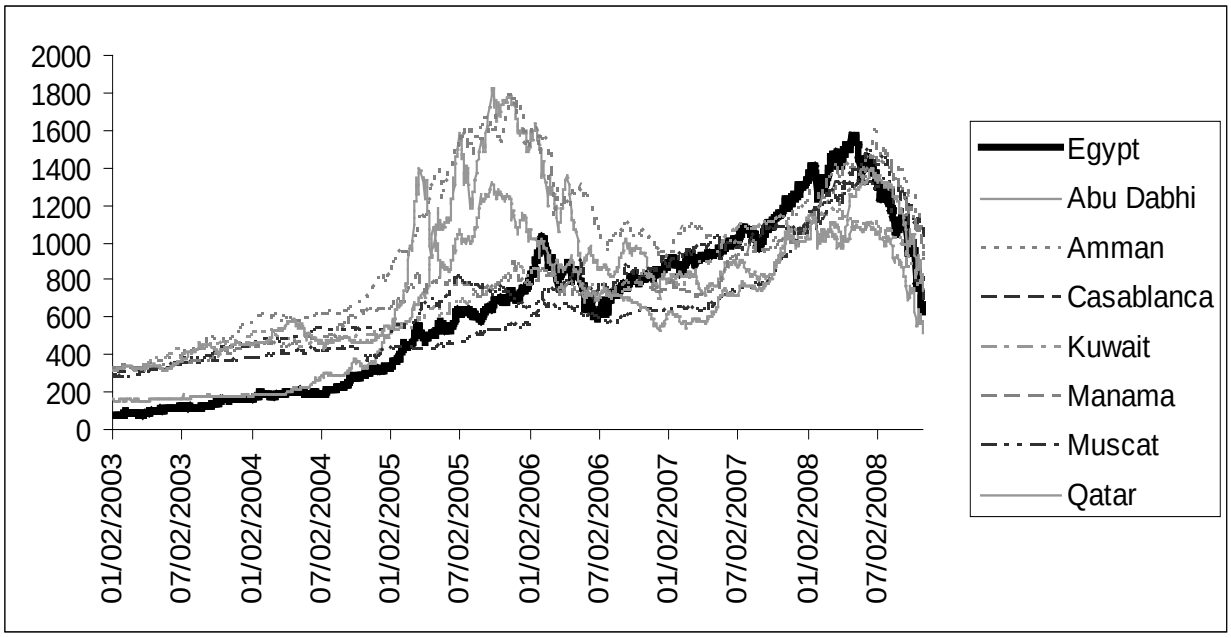
Outliers dropped	Construction and materials, medians						
	2003	**2004**	**2005**	**2006**	**2007**	**Average**	**CAGR**
PROFITABILITY INDICATORS							
Operating profit margin, %							
Peer group (WS)	13.8	16.3	17.3	18.6	14.4	16.1	0.8
Egypt - Universe (Coface)	10.8	7.2	15.1	13.3	17.9	12.9	10.7
Egypt - Second tier (Coface)	8.9	6.5	11.7	10.3	13.5	10.2	8.7
Egypt - Top tier (Coface)	15.1	17.6	31.7	26.5	26.2	23.4	11.6
Egypt - Top tier (WS)	19.8	30.6	37.0	31.2	20.3	27.8	0.4
ROA, %							
Peer group (WS)	3.7	5.2	6.9	7.0	6.4	5.8	11.5
Egypt - Universe (Coface)	4.7	4.4	8.7	10.9	14.0	8.6	24.1
Egypt - Second tier (Coface)	4.1	3.9	5.5	7.6	9.5	6.1	18.5
Egypt - Top tier (Coface)	6.3	11.2	12.8	13.0	14.4	11.6	17.9
Egypt - Top tier (WS)	9.5	14.5	20.7	18.1	10.7	14.7	2.3
ROE, %							
Peer group (WS)	4.9	8.7	12.2	14.2	10.5	10.1	16.4
Egypt - Universe (Coface)	10.0	12.2	18.8	21.7	23.1	17.2	18.2
Egypt - Second tier (Coface)	10.6	10.5	14.4	21.4	24.2	16.2	18.0
Egypt - Top tier (Coface)	8.8	15.9	27.0	24.0	22.6	19.7	20.6
Egypt - Top tier (WS)	12.8	20.8	35.4	22.9	18.7	22.1	7.8
Price to Book ratio							
Peer group (WS)	0.9	1.1	1.3	1.6	1.7	1.3	13.7
Egypt - Universe (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Second tier (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Top tier (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Top tier (WS)	1.5	2.8	3.3	2.9	1.9	2.5	5.0
GROWTH RATES							
Yearly net fixed asset growth, %							
Peer group (WS)	NA	-4.1	-7.0	-2.7	NA	-4.6	NA
Egypt - Universe (Coface)	NA	-12.5	-8.6	-9.1	-8.1	-9.6	NA
Egypt - Second tier (Coface)	NA	-11.0	-9.4	-7.9	-7.0	-8.8	NA
Egypt - Top tier (Coface)	NA	-13.7	-7.2	-10.8	-10.5	-10.6	NA
Egypt - Top tier (WS)	NA	-14.0	-6.0	11.8	NA	-2.7	NA
Yearly real total assets growth, %							
Peer group (WS)	NA	1.6	2.8	3.4	NA	2.6	NA
Egypt - Universe (Coface)	NA	-6.4	-0.1	-2.1	5.3	-0.8	NA
Egypt - Second tier (Coface)	NA	-5.2	-0.1	-1.5	7.3	0.1	NA
Egypt - Top tier (Coface)	NA	-8.5	0.2	-8.2	1.0	-3.9	NA
Egypt - Top tier (WS)	NA	-5.4	5.7	3.6	NA	1.3	NA
Yearly real sales growth, %							
Peer group (WS)	NA	14.8	10.3	7.1	NA	10.7	NA
Egypt - Universe (Coface)	NA	10.3	8.2	11.1	2.7	8.1	NA
Egypt - Second tier (Coface)	NA	1.8	4.4	12.1	2.9	5.3	NA
Egypt - Top tier (Coface)	NA	18.0	16.6	10.1	2.5	11.8	NA
Egypt - Top tier (WS)	NA	14.2	32.1	19.2	NA	21.8	NA
LEVERAGE INDICATORS							
Current liabilities to total liabilities, %							
Peer group (WS)	57.8	62.1	60.7	63.1	53.2	59.4	-1.7
Egypt - Universe (Coface)	70.7	76.9	84.3	87.0	86.8	81.1	4.2
Egypt - Second tier (Coface)	75.2	84.6	84.9	88.6	88.2	84.3	3.2
Egypt - Top tier (Coface)	53.8	60.0	44.4	56.0	70.7	57.0	5.6
Egypt - Top tier (WS)	53.6	55.3	51.1	67.8	66.7	58.9	4.5
Short term debt to tot. liabilities, %							
Peer group (WS)	16.3	15.8	15.2	17.3	14.6	15.8	-2.1
Egypt - Universe (Coface)	20.7	18.6	23.4	22.7	26.9	22.5	5.4
Egypt - Second tier (Coface)	23.3	22.8	25.8	27.7	32.4	26.4	6.8
Egypt - Top tier (Coface)	4.3	6.5	0.2	5.6	16.3	6.6	30.8
Egypt - Top tier (WS)	20.1	18.8	14.5	13.4	30.9	19.5	9.0
Total debt to Equity, %							
Peer group (WS)	14.3	15.0	19.3	31.3	27.5	21.5	14.0
Egypt - Universe (Coface)	37.6	36.6	40.9	34.2	26.3	35.2	-6.9
Egypt - Second tier (Coface)	26.1	41.3	30.8	33.1	24.6	31.2	-1.2
Egypt - Top tier (Coface)	53.1	27.8	74.6	34.8	29.5	44.0	-11.1
Egypt - Top tier (WS)	52.2	32.0	62.2	23.6	61.8	46.4	3.5

Outliers dropped	Consumer staples, medians						
	2003	**2004**	**2005**	**2006**	**2007**	**Average**	**CAGR**
PROFITABILITY INDICATORS							
Operating profit margin, %							
Peer group (WS)	7.8	8.1	8.1	9.0	8.8	8.4	2.5
Egypt - Universe (Coface)	6.4	6.5	7.1	7.3	7.3	6.9	2.6
Egypt - Second tier (Coface)	6.5	6.7	7.1	7.6	7.3	7.0	2.3
Egypt - Top tier (Coface)	5.0	5.0	7.0	7.3	6.8	6.2	6.4
Egypt - Top tier (WS)	9.1	5.5	5.5	4.7	4.0	5.8	-15.2
ROA, %							
Peer group (WS)	5.6	4.6	4.9	5.8	6.3	5.4	2.2
Egypt - Universe (Coface)	7.4	6.7	5.3	6.0	6.9	6.5	-1.5
Egypt - Second tier (Coface)	5.6	6.6	4.8	5.5	6.2	5.7	1.9
Egypt - Top tier (Coface)	8.7	7.7	10.1	10.3	8.8	9.1	0.1
Egypt - Top tier (WS)	9.9	9.8	10.7	8.6	10.2	9.8	0.7
ROE, %							
Peer group (WS)	7.0	6.1	6.4	8.7	10.1	7.6	7.6
Egypt - Universe (Coface)	12.3	16.9	14.0	13.8	12.5	13.9	0.4
Egypt - Second tier (Coface)	11.6	16.8	12.6	13.7	12.3	13.4	1.2
Egypt - Top tier (Coface)	21.6	17.4	23.8	21.0	16.7	20.1	-5.0
Egypt - Top tier (WS)	18.4	18.6	21.7	21.2	24.8	21.0	6.1
Price to Book ratio							
Peer group (WS)	1.0	1.1	1.3	1.4	1.5	1.3	8.5
Egypt - Universe (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Second tier (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Top tier (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Top tier (WS)	0.8	0.9	1.8	1.3	1.2	1.2	9.3
GROWTH RATES							
Yearly net fixed asset growth, %							
Peer group (WS)	NA	-1.8	-3.3	-5.3	NA	-3.4	NA
Egypt - Universe (Coface)	NA	-11.9	-5.9	-8.3	-8.9	-8.7	NA
Egypt - Second tier (Coface)	NA	-12.0	-5.7	-8.4	-9.7	-9.0	NA
Egypt - Top tier (Coface)	NA	-11.5	-7.4	2.8	-3.7	-4.9	NA
Egypt - Top tier (WS)	NA	-9.2	-6.4	-3.2	NA	-6.3	NA
Yearly real total assets growth, %							
Peer group (WS)	NA	2.1	-1.4	-1.7	NA	-0.3	NA
Egypt - Universe (Coface)	NA	-4.2	-1.8	0.2	-1.1	-1.7	NA
Egypt - Second tier (Coface)	NA	-4.6	-2.4	0.3	-2.9	-2.4	NA
Egypt - Top tier (Coface)	NA	-3.1	-1.1	-1.5	1.7	-1.0	NA
Egypt - Top tier (WS)	NA	7.5	1.4	-5.1	NA	1.3	NA
Yearly real sales growth, %							
Peer group (WS)	NA	5.2	0.1	3.6	NA	3.0	NA
Egypt - Universe (Coface)	NA	0.9	-3.5	-2.5	-2.5	-1.9	NA
Egypt - Second tier (Coface)	NA	0.3	-1.8	-1.6	-0.7	-0.9	NA
Egypt - Top tier (Coface)	NA	4.7	-7.9	-7.9	-3.6	-3.7	NA
Egypt - Top tier (WS)	NA	4.6	-12.9	-8.0	NA	-5.4	NA
LEVERAGE INDICATORS							
Current liabilities to total liabilities, %							
Peer group (WS)	71.7	72.6	69.0	68.0	69.0	70.1	-0.8
Egypt - Universe (Coface)	89.3	86.5	90.3	89.4	90.0	89.1	0.2
Egypt - Second tier (Coface)	89.2	76.9	87.1	87.7	90.0	86.2	0.2
Egypt - Top tier (Coface)	89.3	96.9	97.2	96.6	91.9	94.4	0.6
Egypt - Top tier (WS)	86.4	95.4	97.2	96.7	96.8	94.5	2.3
Short term debt to tot. liabilities, %							
Peer group (WS)	90.8	94.8	95.4	95.3	96.0	94.5	1.1
Egypt - Universe (Coface)	31.5	35.3	28.4	30.1	30.7	31.2	-0.5
Egypt - Second tier (Coface)	66.8	61.9	66.1	61.6	64.9	64.3	-0.6
Egypt - Top tier (Coface)	12.2	27.8	13.7	12.5	24.1	18.1	14.6
Egypt - Top tier (WS)	58.4	68.5	57.7	60.3	60.0	61.0	0.5
Total debt to Equity, %							
Peer group (WS)	29.9	27.0	35.4	30.9	30.4	30.7	0.3
Egypt - Universe (Coface)	28.9	25.6	26.1	21.3	19.4	24.3	-7.6
Egypt - Second tier (Coface)	28.1	25.2	23.9	23.2	20.7	24.2	-6.0
Egypt - Top tier (Coface)	28.9	31.7	27.3	10.3	16.2	22.9	-10.9
Egypt - Top tier (WS)	32.4	20.6	23.0	8.6	20.7	21.0	-8.6

Outliers dropped	Industrial cyclical, medians						
	2003	**2004**	**2005**	**2006**	**2007**	**Average**	**CAGR**
PROFITABILITY INDICATORS							
Operating profit margin, %							
Peer group (WS)	7.5	8.6	8.4	7.9	7.9	8.1	0.9
Egypt - Universe (Coface)	9.4	11.5	10.7	9.8	11.4	10.6	4.0
Egypt - Second tier (Coface)	8.1	10.4	10.4	9.8	10.7	9.9	5.5
Egypt - Top tier (Coface)	18.3	17.7	22.5	16.7	22.2	19.5	3.9
Egypt - Top tier (WS)	19.1	14.5	23.4	19.6	12.4	17.8	-8.3
ROA, %							
Peer group (WS)	4.5	5.9	5.3	5.3	5.7	5.3	5.1
Egypt - Universe (Coface)	5.0	5.7	7.8	7.8	9.1	7.1	12.6
Egypt - Second tier (Coface)	5.1	5.5	7.6	7.6	8.9	7.0	11.6
Egypt - Top tier (Coface)	5.0	8.9	13.7	12.2	12.1	10.4	19.6
Egypt - Top tier (WS)	10.3	11.9	13.2	14.3	16.7	13.3	10.2
ROE, %							
Peer group (WS)	5.4	8.5	7.9	8.8	9.6	8.0	11.9
Egypt - Universe (Coface)	10.4	13.8	14.9	15.7	19.3	14.8	13.1
Egypt - Second tier (Coface)	10.2	13.7	13.8	14.8	18.4	14.2	12.5
Egypt - Top tier (Coface)	15.1	22.4	28.6	19.3	26.0	22.3	11.5
Egypt - Top tier (WS)	19.8	21.7	25.2	25.0	24.8	23.3	4.6
Price to Book ratio							
Peer group (WS)	1.3	1.3	1.4	1.5	1.6	1.4	5.0
Egypt - Universe (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Second tier (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Top tier (Coface)	NA	NA	NA	NA	NA	NA	NA
Egypt - Top tier (WS)	1.2	1.5	2.4	2.3	3.5	2.2	24.8
GROWTH RATES							
Yearly net fixed asset growth, %							
Peer group (WS)	NA	-3.7	-4.8	-5.0	NA	-4.5	NA
Egypt - Universe (Coface)	NA	-11.0	-10.0	-10.0	-10.5	-10.4	NA
Egypt - Second tier (Coface)	NA	-10.7	-9.9	-10.0	-10.8	-10.4	NA
Egypt - Top tier (Coface)	NA	-13.8	-10.2	-10.7	-8.6	-10.8	NA
Egypt - Top tier (WS)	NA	-11.0	-4.2	5.6	NA	-3.2	NA
Yearly real total assets growth, %							
Peer group (WS)	NA	6.1	-0.2	-0.3	NA	1.9	NA
Egypt - Universe (Coface)	NA	-4.7	0.7	0.4	-0.8	-1.1	NA
Egypt - Second tier (Coface)	NA	-4.9	0.8	0.5	-1.2	-1.2	NA
Egypt - Top tier (Coface)	NA	-0.4	0.7	-1.7	-0.1	-0.4	NA
Egypt - Top tier (WS)	NA	-0.5	0.8	7.2	NA	2.5	NA
Yearly real sales growth, %							
Peer group (WS)	NA	15.9	5.3	5.1	NA	8.8	NA
Egypt - Universe (Coface)	NA	11.2	7.2	2.2	6.9	6.9	NA
Egypt - Second tier (Coface)	NA	7.6	6.8	3.6	6.9	6.2	NA
Egypt - Top tier (Coface)	NA	19.4	9.0	-6.7	17.8	9.9	NA
Egypt - Top tier (WS)	NA	20.8	9.0	12.2	NA	14.0	NA
LEVERAGE INDICATORS							
Current liabilities to total liabilities, %							
Peer group (WS)	72.8	74.3	77.3	74.5	75.9	75.0	0.9
Egypt - Universe (Coface)	84.2	82.4	91.1	83.5	87.4	85.7	0.8
Egypt - Second tier (Coface)	85.9	82.7	92.1	84.0	88.7	86.7	0.6
Egypt - Top tier (Coface)	37.1	61.4	59.4	70.4	75.6	60.8	15.3
Egypt - Top tier (WS)	76.6	73.6	72.5	79.3	84.1	77.2	1.9
Short term debt to tot. liabilities, %							
Peer group (WS)	20.7	19.9	18.1	20.4	17.2	19.3	-3.6
Egypt - Universe (Coface)	25.7	28.1	26.8	25.0	23.1	25.7	-2.1
Egypt - Second tier (Coface)	28.8	27.8	27.8	25.9	22.2	26.5	-5.1
Egypt - Top tier (Coface)	15.5	29.4	22.3	22.2	35.6	25.0	18.1
Egypt - Top tier (WS)	22.2	32.2	23.5	32.8	50.6	32.3	17.9
Total debt to Equity, %							
Peer group (WS)	18.7	19.4	16.0	20.7	19.3	18.8	0.6
Egypt - Universe (Coface)	21.6	17.7	19.4	23.4	22.1	20.8	0.5
Egypt - Second tier (Coface)	21.1	14.7	11.7	23.0	19.8	18.0	-1.3
Egypt - Top tier (Coface)	31.0	33.8	61.6	68.8	87.9	56.6	23.2
Egypt - Top tier (WS)	30.6	43.2	60.9	62.3	16.3	42.7	-11.8

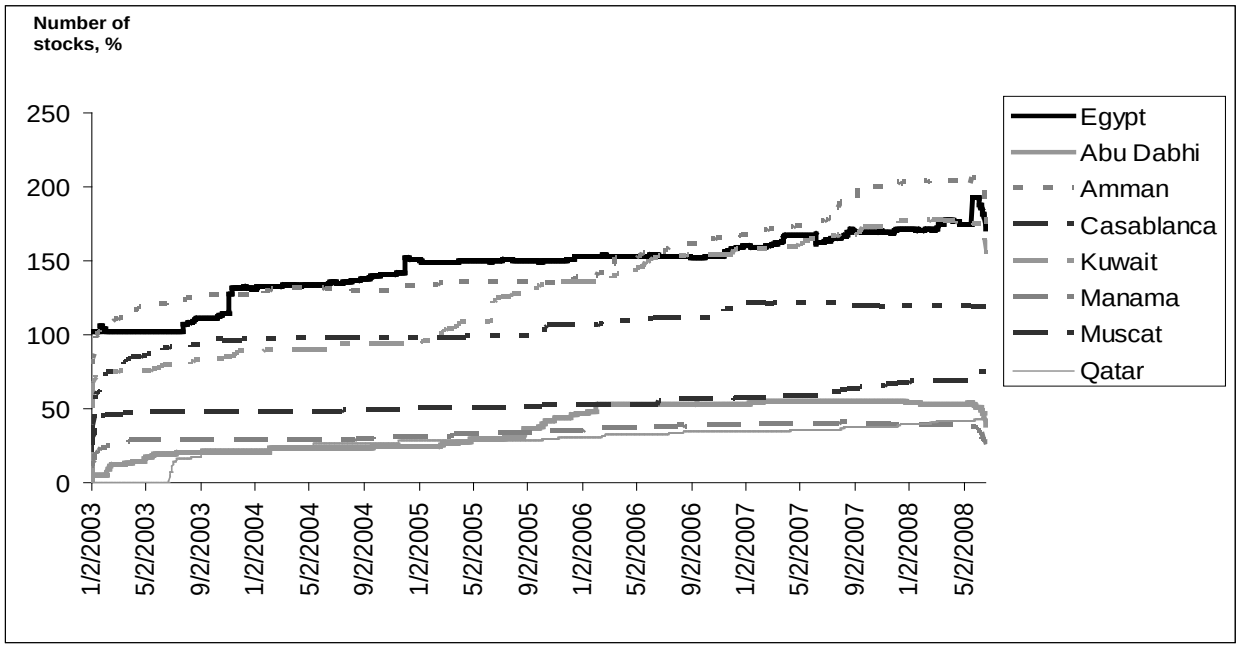
Exhibit A.3 – MSCI investible market indices for selected countries, January 1st 2003-June 20th 2008

Denominated in local currencies



Source: Bloomberg

Exhibit A.4 – Number of firms simultaneously covered by Bloomberg, January 1st 2003-June 20th 2008



Source: Bloomberg